EXETER

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REF: 140905

September 26, 2014

Delaware Public Service Commission Attn: Malika Davis BID PROPOSAL ENCLOSED 861 Silver Lake Boulevard, Suite 100 Cannon Building Dover, DE 19904

Re: Delmarva Power & Light Company

Electric Aggregation Analysis

Request for Proposal

Dear Ms. Davis:

Exeter Associates, Inc. is pleased to submit this proposal to provide public utility consulting services to the Delaware Secretary of State regarding the potential opportunity for Delmarva Power & Light Company's residential and small commercial electric customers to reduce their electric supply costs through aggregation and bulk market purchases of electric supply. Our proposal addresses each aspect of the RFP.

Our proposal is a firm offer for a period of not less than six (6) weeks from the September 26, 2014 deadline for proposals. If you have any questions of either a technical or contractual nature, please do not hesitate to contact me. We look forward to working with you on behalf of Delaware ratepayers.

Sincerely,

Jerome D. Mierzwa Vice President

JDM/ar Enclosure

PROPOSAL TO PROVIDE PROFESSIONAL CONSULTING SERVICES TO THE DELAWARE SECRETARY OF STATE FOR THE PURPOSE OF ASSESSING THE POTENTIAL OPPORTUNITY FOR ELECTRICITY AGGREGATION TO BENEFIT DELMARVA POWER & LIGHT COMPANY'S RESIDENTIAL AND SMALL COMMERCIAL CUSTOMERS' ELECTRIC SUPPLY COSTS

Prepared for:

DELAWARE PUBLIC SERVICE COMMISSION

861 Silver Lake Boulevard Cannon Building, Suite 100 Dover, Delaware 19904

September 26, 2014

Prepared by:

EXETER

ASSOCIATES, INC. 10480 Little Patuxent Parkway Suite 300 Columbia, Maryland 21044

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I. Introduction

On July 1, 2014, the 147th Delaware General Assembly and Governor Jack Markell approved House Bill 425. Paragraph 66 of House Bill 425 creates an Electric Aggregation Committee ("EAC" or "Committee"), chaired by the Secretary of State and charged with evaluating the potential development of an electricity aggregation program for Delaware's residential customers. The Committee is to evaluate the potential savings based on local market conditions and best practices. If the Committee determines that an aggregation program will reduce electric bills, the Secretary shall have the authority to contract for such program. While the bill is not specific with respect to the definition of residential customers, the sponsoring Senator asserts that it pertains to Delmarva Power & Light Company's ("Delmarva's") residential and small commercial customers and estimates the maximum potential load to be approximately 90 megawatts ("MW").

Delmarva currently provides electric standard offer service ("SOS") to approximately three hundred thousand (300,000) residential and commercial customers in Delaware. The electricity supply is currently acquired through a wholesale reverse auction process whereby bidders are invited to bid on typical 50- to 100-MW tranches to provide service over specific periods of time. For residential and small commercial customers, bidders are asked to bid wholesale three year contracts on one-third of the load such that only one-third of the total load contracts are expiring each year. This laddered approach was specifically designed to reduce energy price volatility to customers and has continued for the past ten years. In addition, Delmarva is permitted to recover the expenses of the auction process and a reasonable allowance for retail margin. In other states, cities and counties have aggregated the buying power of individual customers within a defined jurisdiction in order to secure alternative energy supply contracts. The sponsor of Paragraph 66 in House Bill 425 has indicated that electricity aggregation has been able to save ratepayers money in many instances in other states and that the State of Delaware should examine this option for its residential customers.

The EAC is chaired by the Secretary of State and consists of a representative from the Office of Management and Budget, a representative from the Office of the Controller General, a representative from the Department of Natural Resources and Environmental Control, and a

representative from the Public Service Commission. The EAC met on Wednesday, August 6, 2014, and agreed that it would be beneficial to seek consulting assistance with this review effort. The EAC also determined that the consulting services being sought would be for the purpose of assessing the benefit/cost potential for aggregation programs in the Delaware energy market place.

Exeter Associates, Inc. ("Exeter"), a firm of consulting economists specializing in issues pertaining to public utilities, proposes to provide professional public utility consulting services to the EAC in regard to the potential for electricity aggregation programs in Delaware. Exeter has extensive experience in virtually all aspects of competitive electric power supply acquisition, including assessment of regulated default service programs, utility residential aggregation programs, and aggregation of loads from the customer's perspective. Exeter's experience directly applicable to the scope of work stems from our work since the beginning of electric power industry restructuring for Maryland and Pennsylvania from the regulatory/program design perspective, and for the U.S. Department of Defense and the U.S. Department of Energy from the customer perspective.

Our proposal is presented in four sections in addition to this introductory section. Section II provides a description of the general and specific assistance we will provide, including a discussion of the issues we will examine. Section III provides our proposed work plan. Section IV provides our proposed staffing for this investigation and our qualifications and experience in this area. Our cost estimate is provided in Section V. In addition, we have included appendices which provide a statement of our corporate qualifications, a list of related prior projects, and the resumes of proposed project personnel.

II. Assistance and Issues

Exeter will provide a complete analysis of the potential benefits and costs of aggregating the energy purchases of residential and small commercial customers in the Delaware energy marketplace. Exeter proposes to perform two specific tasks within a limited four- to six-month timeframe. Those tasks are as follows:

TASK 1: ELECTRICITY AGGREGATION ASSESSMENT

Provide an assessment of the benefits/costs/results of the major electricity aggregation programs for residential customers currently taking place in the various U.S. states and a summary outcome of the programs to the extent known, identifying those that may be very similar or dissimilar to Delaware's particular energy market.

TASK 2: ELECTRICITY AGGREGATION RECOMMENDATION

Identify aggregation program(s) that could be considered for Delaware's residential and small commercial customers, given Delaware energy market specifics, and provide an assessment of the benefits/costs that could be anticipated in the Delaware energy market for the respective program(s).

As discussed in greater detail in the following section of this proposal, the services which Exeter will provide for each task are outlined below:

TASK 1: ELECTRICITY AGGREGATION ASSESSMENT

- a. Discovery and review of major active aggregation programs currently occurring or that have previously occurred in energy market-based states in the U.S.
- b. Evaluation of the identified aggregation programs' benefits/costs and potential applicability for similar programs to the Delaware energy market.
- c. Identification of the best and worst features of the major aggregation programs and what issues would be considered in any Delaware aggregation program.
- d. Preparation of a Summary Assessment report to provide the EAC with aggregation program background information.

Discussion

There are hundreds of governmental aggregation programs in place for residential, and in some cases, small commercial customers throughout the U.S. Exeter's proposal is not to conduct a comprehensive review of each of these programs but rather to evaluate a representative sample of such programs including the largest programs (for example, the Cape Light Compact Program in Massachusetts with 21 towns, and the Rhode Island Energy Aggregation Program that includes almost 40 municipalities in the state), as well as certain smaller programs. To the maximum extent possible, the sample will include programs in place in multiple states in which aggregation programs are prevalent (e.g., Ohio, Illinois, Maryland, New Jersey) with an emphasis on states within the PJM regional transmission organization ("RTO"). Additionally, the sample will be developed to ensure that alternative types of programs are included to facilitate an analysis of how the various program features operate.

Exeter will also identify aggregation programs that have failed (that is, no longer operate or exist) and assess the reasons why those particular programs were not successful. We anticipate that the sample of failed programs will be less than the sample of successful programs. We anticipate a sample of 20 to 25 successful aggregation programs (i.e., programs currently in existence and operating) and sample of 5 to 7 unsuccessful programs.

The key characteristics of these programs will be identified, and a matrix of programs (both successful and unsuccessful) will be developed to provide a summary representation of the results of the survey. At a minimum, the characteristics that will be included in the summary matrix will include:

- Rate classes included (e.g., residential, small commercial);
- Opt-in or opt-out;
- Participation rates;
- Aggregating jurisdiction;
- Administrative costs and the method of administrative cost collection;
- Method of selecting a supplier (e.g., RFP, descending clock auction);
- Applicability of exit fees;
- Availability of alternative supply products (e.g., "green power" products);
- Pricing mechanisms (e.g., time-of-use rates);

- Frequency of price changes; and
- Estimated cost savings relative to utility standard offer or default service rates.

The information contained in the matrix will then be distilled to assess any apparent correlations to estimate the influence of certain key characteristics on the effects; for example, whether the program is opt-in or opt-out and the effect on participation rates. In all instances where pair-wise correlation is intuitively reasonable, those calculations will be made and an assessment provided.

Because many, but not all, of the programs already in place and expected to be included in the sample are within the PJM footprint, we would expect that there would be a high degree of applicability to the Delaware energy market. State-specific regulations, however, may affect the degree of applicability to Delaware, and where this is the case, it will be noted by Exeter.

The best and worst features of the various programs will be identified using participation rates and savings rates as the yardstick for comparisons among various program features. Where a particular feature is found to adversely affect participation and/or available savings relative to standard offer or default service prices, those features will be found to be undesirable. Following discussions with Staff, if there are other yardsticks that Staff would like to see addressed; for example, ease of migration from the aggregation pool to competitive service, those yardsticks will also be included.

For each of the identified programs, Exeter will identify a point of contact and interview the contact to determine whether there are aspects, features, or characteristics of the program that have worked particularly well, have proved to be disappointing, have been modified over time to correct some apparent shortcoming, or are ear-marked for modification in the future. Exeter's experience is that these sorts of discussions can often reveal information that would otherwise not be obtainable.

There are two critical areas that warrant a brief discussion because they tend to be more complicated than the simple features and key characteristics that define a program. One area relates to the aggregation program structure adversely affecting the price that would be received by the utilities or the state for the provision of SOS or default service; that is, the service

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¹ Default service, sometimes referred to as standard offer service, will be referred to in the remainder of this proposal as "default service."

available to power supply customers that either choose not to shop for electric power, cannot shop for power, or find themselves no longer being provided electricity by the energy service provider ("ESP") with which they contracted. Depending on the size of the aggregation pool, whether the aggregation is opt-in or opt-out, and the timing of the commencement of service under the program, the effectuation of aggregation programs can materially add to the risk associated with the provision of default service. This increase in risk translates to an increase in the default service price and hence would impose a cost on all consumers of default service. As an example, if bids for a portion of the default service load are due in September, and a large aggregation program operating in a particular utility service area opens its enrollment in October, the default service bidders will not know the magnitude of the switch to aggregation service and may face a significant load risk. This concern, however, can largely be addressed by limitations on the timing of enrollment in a Delaware aggregation program so as not to impose added risk onto default service supply bidders, who in any particular year are bidding only on approximately one-third of the residential default service load.

The second issue relates to market timing and the impact of timing on available savings relative to the default service rate. In a situation where market prices are declining, the default service rates will be higher than current market rates since the default service price will reflect, in part, legacy contracts. In the case of Delaware, where residential default service is procured under three-year, full-requirements, fixed-price contracts for a specified percentage of the total residential default service load, and one-third of the contracts expire and are re-bid each year, falling market prices could potentially result in default service rates that are significantly higher than the rates that would be available in the market, since approximately two-thirds of the supply would be from contracts that have been in the supply portfolio for at least one year.

Consequently, the savings available to customers participating in the aggregation program is due, at least in part, exclusively to market timing considerations and not inherent to the method of procurement or otherwise associated with aggregation.

Under conditions of market price increases, the legacy contracts forming part of the default service portfolio would be characterized by lower rates, and aggregation programs may not be economic relative to default service. To the extent that aggregation programs would not be initiated under those circumstances, we would tend to see existing programs that tend to be

economic rather than uneconomic due to these market forces. The interpretation of the data related to savings, therefore, needs to be tempered by market circumstances to avoid conclusions that might suggest that aggregation programs generally provide a level of savings that may be overstated.

Exeter will address the impact of timing considerations in the context of market prices and calculated savings from aggregation programs to ensure that savings are not overstated or understated.

In documenting the benefits and the costs of aggregation programs, Exeter recognizes that certain benefits are not quantifiable. For example, the availability of green power products through the aggregation program that might otherwise not be available to consumers, or available on a much more restrictive basis, may not entail energy savings per se, but rather can be viewed as imparting a benefit related to an increase in the choices available to consumers. Similarly, the avoidance of frequent price changes can be perceived as imparting a benefit in the form of increased rate stability. The opposite would be true of increased frequency of price changes.

All of these factors will be considered and incorporated into the summary assessment report placed in a context of applicability to Delaware.

TASK 2: ELECTRICITY AGGREGATION RECOMMENDATION

- a. Determination of any potential cost-effective electricity aggregation program(s) for Delaware to include recommended features or approaches.
- b. Evaluation of the expected benefits/costs of any recommended program(s).
- c. Determination of any critical analysis parameters that could impact the recommended program(s).
- d. Identification of any Aggregation Program Recommendations for EAC consideration.
- e. Based on the findings emerging from the analysis undertaken in Task 1, Exeter will assess the potential for implementation of cost-effective aggregation programs in Delaware, including the features of the programs that warrant inclusion or exclusion. Where feasible, Exeter will quantify the cost-effectiveness but will also note the non-quantifiable benefits and costs associated with the recommended program features.

Discussion

The development of the recommendations will include the impacts of aggregation programs on the residential (and small commercial) default service prices owing to potential increases in the volumetric risk faced by bidders, or other possible factors (such as possible impacts on the number of bidding firms for default service supply). Where warranted, recommendations on resolution to potential conflicts will be provided not only on the structure of the recommended aggregation programs but also on default service arrangements if modifications to the current arrangements would be more accommodating to the implementation and success of aggregation programs.

As noted in the previous section, part of the success (or lack of success) of aggregation programs is related to the timing of the enrollments vis-a-vis market movements in price. Exeter will include in its recommendations a method of evaluating the desirability of the timing of enrollment in programs to affect the likelihood of program success. These recommendations will not be predicated on forecasting market movements or attempting to time the enrollment to maximally benefit consumers, but rather to assess current market conditions in light of historical market prices (in the form of futures prices) that prevailed during the time that default service supplies were competitively procured. This approach will serve to provide a framework for determining whether prices are more favorable than the price-to-compare.

Exeter will provide a comprehensive list of Aggregation program recommendations to the EAC for consideration, with identification of the strength of each of the recommendations and an explanation of the advantages and disadvantages of each.

III. Work Plan

Exeter proposes to organize its technical assistance in the following procedural steps or tasks:

- 1. Establish a set of screening criteria to filter the successful residential/small commercial aggregation programs in place elsewhere for inclusion in the sample set. These criteria can be expected to include, but necessarily be limited to:
 - a. The size of the program;
 - b. The location of the program;
 - c. The period of time over which the program has been in place; and
 - d. The availability of information and data regarding the program.
- 2. Establish a set of screening criteria to filter the unsuccessful residential/small commercial aggregation programs that were in place elsewhere for inclusion in the sample set. These criteria can be expected to include, but necessarily be limited to:
 - a. The size of the program;
 - b. The location of the program;
 - c. The period of time over which the program was in place; and
 - d. The availability of information and data regarding the program and the availability of individuals familiar with the program.
- 3. Identify successful residential/small commercial aggregation programs in place elsewhere based on the set of identified screening criteria established in Item 1, above. This will be accomplished through means of online searches, contacting public service commission staff personnel in other states, contacting personnel attached to offices of public advocate, and others as assessed to be warranted. The size of this sample is anticipated to be between 20 and 25 programs.
- 4. Identify unsuccessful residential/small commercial aggregation programs that were in place elsewhere based on the set of identified screening criteria established in Item 2, above. This will be accomplished through means of online searches, contacting public service commission staff personnel in other states, contacting personnel attached to offices of public advocate, and others as assessed to be warranted.
- 5. Establish a set of program features and characteristics that will be considered in the evaluation and analytical process. The set of program features and characteristics will conform, at a minimum, to the criteria presented under the Task 1 discussion portion of this proposal. Additional features/characteristics will also be included as they emerge.

- 6. Complete a matrix of programs and program features/characteristics based on the information gathered from all of the sources consulted. As noted, the information collected on each of these programs will be augmented through telephone interviews with individuals knowledgeable about program details and history.
- 7. Conduct statistical, quantitative, and non-quantitative analysis of the information gathered and processed during Steps 5 and 6. This analysis will include measuring correlation coefficients for certain of the criteria (e.g., the correlation between whether the program is opt-in or opt-out and participation rates) and otherwise developing metrics to facilitate evaluation and development of recommendations.
- 8. Collect market data on energy prices and information related to default service programs in place in the jurisdictions relevant to the sample aggregation programs. Market data is available to Exeter through our in-house library, Exeter's subscriptions to proprietary databases, and publicly available information. Information regarding default service programs is available to Exeter through our extensive work on default service programs in Maryland, Pennsylvania, Ohio, New Jersey, and elsewhere, and through publicly available documents and public service commission orders related to default service program authorizations.
- 9. Conduct pricing analysis based on the movement of market prices over time and the characteristics of the relevant default service programs. We anticipate the need to develop individual spreadsheets to conduct this analysis given the wide range of differences in default service programs among states and over time within a particular state. For example, Maryland residential default service is provided through two-year laddered, full-requirements contracts with one-fourth of the load recompeted every six months. Pennsylvania utilities each have their own unique programs that require approval every two years, and the default service portfolios, while typically composed primarily of full requirements contracts of varying duration, may also include fixed-price block products and spot market components.
- 10. Prepare a draft report based on the findings obtained in Steps 1 through 9, including a set of recommendations for EAC consideration. This report will be consistent with the discussions sections related to Tasks 1 and 2 of this proposal.
- 11. Exeter will address all comments received on the draft report and issue a final report based on the resolution of the issues contained in any of the comments received.
- 12. Exeter personnel will be available meet with the Delaware Staff and/or the Committee to present and discuss the final report and to address any questions. Exeter is also available to provide a Webinar if requested.

Communication with the EAC Project Coordinator will be important and will occur regularly, at least on a bi-weekly basis, throughout all stages of the investigation. Exeter will provide assistance and briefings as necessary regarding issues identified and our approaches and techniques for dealing with those issues. It is expected that the case work will span approximately four to six months, with the majority of work performed during the first three months.

IV. Qualifications and Staffing

A. <u>Corporate Qualifications</u>

Exeter is a firm of consulting economists specializing in public utility, energy, environmental, telecommunications, and antitrust economics. The firm has been retained by public and private sector clients and has undertaken studies relating to utility costs, utility service demands, and regulatory policy matters. Exeter's senior professional staff have provided expert testimony on these and related issues before state and federal regulatory agencies, state and federal courts, and state and federal legislative committees and subcommittees. Our client base includes regulatory agencies, consumer advocates, other government agencies, and private sector organizations. A complete statement of our corporate qualifications is provided as Appendix A to this proposal, and a list of client references for the personnel assigned to this project is included as Table 1 on the following page. Appendix B to this proposal provides a list and description of prior projects which are similar in nature to that proposed for EAC. Appendix C provides resumes of key personnel envisions for this project.

Exeter's work on this project will be informed by our extensive experience in all aspects of this project. Among Exeter's projects directly related to the work requested by the Delaware PSC are the following engagements:

- 1. Exeter personnel worked with the Department of Defense, Defense Logistics Agency Energy (DLA Energy) to form an aggregated load (approximately 275 MW) of federal government customers in PJM including Aberdeen Proving Ground, Andrews Air Force Base, Lakehurst Naval Air Station, McGuire Air Force Base, National Institutes of Health, and others. Exeter worked with DLA Energy to develop the method by which the load would be served, the establishment of hedging mechanisms to mitigate market risk, the development of the supply portfolio for a five-year supply contract, and language for the competitive solicitation. Exeter also assisted DLA Energy throughout the term of the contract regarding a variety of issues, including renewable energy issues, cost allocation, invoicing, and cost audits. The first follow-on five-year contract for the initial PJM aggregated load contract was recently awarded.
- 2. Exeter has assisted the Pennsylvania Office of Consumer Advocate in the review of utility-proposed default service programs in the state. This work has entailed review of the proposed programs, identification of areas for improvement in the context of price level, price stability, or other factors, and the preparation of testimony related to our

findings. Utilities for which Exeter has conducted this work, which is ongoing, have included:

- a. The Pennsylvania FirstEnergy companies (Metropolitan Edison, Pennsylvania Electric, Pennsylvania Power, and West Penn Power);
- b. UGI;
- c. PECO Energy;
- d. Duquesne;
- e. PPL Electric; and
- f. Pike County.

In some cases, the utility proposed opt-in aggregation programs for power to be provided by a competitive supplier (or suppliers) as a means of enhancing the competitive market. Exeter examined those programs to determine the impacts on default service costs for residential consumers.

- 3. Exeter has conducted extensive market evaluation in PJM on behalf of the Maryland Department of Natural Resources, Power Plant Research Program (PPRP); the U.S. Air Force; the U.S. Navy; the U.S. Army; the Public Utilities Commission of Ohio; and the Maryland Energy Administration. This work has entailed:
 - a. Development of forecasted electric energy and capacity prices in multiple zones in PJM, under multiple scenarios for PPRP, as part of the preparation of the Long-term Electricity Report for Maryland, as required by an Executive Order issued by Governor Martin O'Malley. This report also addressed the introduction of new power plants in PJM, the retirement of existing power plants, emissions (CO₂, SO_x, NO_x, and mercury), and power imports and exports between transmission zones over a 20-year period. This report was prepared in 2011 and updated in 2013. A new report is scheduled for publication in 2016, which will also be prepared by Exeter.
 - b. Exeter has worked with the U.S. Air Force, as well as the Army and Navy, regarding the estimation of future power supply costs in the context of determining the economic feasibility of renewable energy project development at various bases and installations, including Ft. Drum in New York, Ft. Detrick and Aberdeen Proving Ground in Maryland, Ft. Dix in New Jersey, Vandenberg AFB in California, Ft. Hood in Texas, a variety of Navy installations in Virginia, and McGuire AFB in New Jersey.
 - c. Exeter worked with the Maryland Energy Administration and PPRP to develop estimates of avoided costs in the state related to energy efficiency and conservation programs under the EmPOWER Maryland initiative. The

- avoided-cost categories included electricity (energy, capacity, demand reduction induced price effects), natural gas, water, and propane.
- d. For the Public Utilities Commission of Ohio, Exeter evaluated the markets for renewable energy (both Ohio in-state and out-of-state) in connection with an audit of FirstEnergy Ohio's purchases for renewable energy credits to satisfy the state's renewable energy requirement.

TABLE 1

Exeter Associates, Inc.

References

- Mr. Roger Sarver
 Ohio Public Utilities Commission
 180 East Broad Street, Third Floor
 Columbus, OH 43215-3793
 Telephone: (614) 466-7647
 (Reference for Mr. Mierzwa)
- Ms. Tanya J. McCloskey, Esq.
 Pennsylvania Office of Consumer Advocate
 555 Walnut Street
 Forum Place Fifth Floor
 Harrisburg, PA 17101
 Telephone: (717) 783-5048
 (Reference for Dr. Estomin and Mr. Mierzwa)
- Mr. Lawrence Fratis
 Defense Logistics Agency Energy
 Defense Energy Support Center
 8725 John J. Kingman Road, Suite 4950
 Fort Belvoir, VA 22060
 Telephone: (703) 767-8528
 (Reference for Dr. Estomin)
- Ms. Nancy Coleal
 Air Force Civil Engineer Center
 Utility Litigation Team
 139 Barnes Drive, Suite 1
 Tyndall AFB, FL 32403-5319
 Telephone: (850) 283-6215
 (Reference for Dr. Estomin)

- Mr. Leja Courter
 Indiana Office of Utility Consumer Counsel PNC Center
 115 West Washington Street, Suite 1500 South Indianapolis, IN 46204-2275
 Telephone: (317) 233-3233
 (Reference for Mr. Mierzwa)
- 4. Ms. Julie Lucas Soderna
 Illinois Citizens Utility Board
 309 West Washington Street, Suite 800
 Chicago, IL 60606
 Telephone: (312) 263-4282
 (Reference for Mr. Mierzwa)
- 6. Ms. Susan T. Gray
 Maryland Department of Natural Resources
 Power Plant Research Program
 Tawes State Office Building, B-3
 580 Taylor Avenue
 Annapolis, MD 21404
 Telephone: (410) 260-8661
 (Reference for Dr. Estomin)

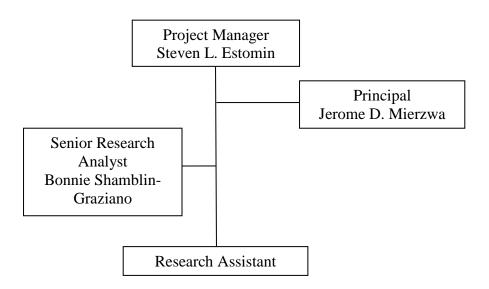
B. <u>Project Staffing</u>

Each engagement undertaken by Exeter becomes the direct responsibility of one of our principals—the President or one of the Vice Presidents. The manager of each project is directly responsible to the Board of Directors, which comprises all of the six principals.

We propose that this project be conducted under the direction of Dr. Steven L. Estomin, a Principal of Exeter. Dr. Estomin has over 30 years of experience in addressing regulatory issues and has testified in over 40 cases before state and federal commissions and in U.S. District Courts. Assisting Dr. Estomin will be Mr. Jerome D. Mierzwa, also a principal of Exeter. Mr. Mierzwa has been retained by numerous regulatory commissions and has testified in 15 jurisdictions in the United States, including the Delaware PSC. Also assisting on this project will be Ms. Bonnie Shamblin-Graziano, a Senior Analyst with over 20 years of energy procurement experience. All Exeter research assistants have at least a B.A./B.S. in Economics or a related field. Research assistants will be used for some of the data collection efforts and spreadsheet development. The complete resumes of Dr. Estomin, Mr. Mierzwa and Ms. Shamblin-Graziano are included in Appendix C to this proposal. The hourly billing rates for project participants are as follows:

Steven L. Estomin	\$205
Jerome D. Mierzwa	\$180
Bonnie Shamblin-Graziano	\$165
Research Assistant	\$75

An organizational chart for this project is presented below:



Exeter and the personnel to be employed on this project have no financial or business interest directly or indirectly with the Delaware PSC-regulated companies or their competitors doing business within the State of Delaware, which would or could be reasonably thought to affect the exercise of independent professional judgment throughout the proceedings contemplated by this RFP.

V. Cost Estimate

We propose to provide the prior-specified assistance with regard to all issues for an amount not to exceed \$53,000, including \$52,500 for professional services and \$500 for expenses. It is also our proposal that invoices be submitted to the Commission monthly, reflecting work completed to that point. Professional services will be billed at standard hourly rates. Out-of-pocket expenses, such as those for reproduction and shipping, will be billed as incurred. Our proposed budget covers all professional services, administrative and clerical support, and out-of-pocket expenses. The breakdown of our budget estimate is shown on Table 2, below. Our budget estimate includes costs associated with two 2-person trips to Delaware.

The Committee shall pay Exeter as full compensation for all authorized work performed and accepted, including all costs, fees, and expenses, an amount not to exceed \$53,000. Our bid is a firm offer for a period of not less than six (6) weeks from the deadline for proposals.

Table 2

Detail of Cost Proposal

Professional Staff	Position	Billing Rate	<u>Hours</u>	Cost
Steven L. Estomin	Principal	\$205	60	\$12,300
Jerome D. Mierzwa	Principal	180	100	18,000
Bonnie Shamblin-Graziano	Sr. Analyst	165	80	13,200
Research Assistant		75	120	9,000
Total Professional Services				\$52,500
Expenses				<u>500</u>
Total Budget				<u>\$53,000</u>

ACCEPTANCE OF PROPOSAL

If this proposal meets with Delaware PSC approval and we are selected as the successful offeror, you will so indicate by signing the acceptance provided below and we will consider the RFP and this proposal as our agreement on this matter. We understand that this acceptance is tentative and conditioned upon approval by the Office of the Secretary of Finance of the State of Delaware of a validly executed purchase order for the work to be performed in connection therewith. We will perform no services under this proposal to be charged to the Committee or to the State of Delaware and will not consider a binding contractual arrangement to have been entered into until the issuance by the Secretary of State of a formal notice of acceptance stating that a validly executed purchase order for services to be performed in accordance with this proposal has been approved by the Office of the Secretary of Finance of the State of Delaware. We acknowledge that all terms, conditions, and assurances contained in the RFP to which this proposal responds are accepted and incorporated by this proposal.

Accepted this	_ day of			
	, 2014	By:	Delaware Secretary of State	

APPENDICES

APPENDIX A: CORPORATE QUALIFICATIONS STATEMENT

APPENDIX B: RELATED PRIOR PROJECTS

APPENDIX C: RESUMES OF PROJECT PERSONNEL

APPENDIX A

CORPORATE QUALIFICATIONS STATEMENT

APPENDIX A

EXETER ASSOCIATES, INC.

10480 LITTLE PATUXENT PARKWAY SUITE 300 COLUMBIA, MARYLAND 21044

CORPORATE QUALIFICATIONS

EXETER ASSOCIATES, INC. **CORPORATE OUALIFICATIONS -- GENERAL**

Exeter Associates, Inc. provides economic and financial consulting services in the areas of public utility regulation, energy, and antitrust economics. The firm maintains the highest standards in the application of economic and financial analysis to both quantitative and policy issues in the electric, gas, and other industries.

Exeter Associates, Inc. is distinguished by the breadth of experience and expertise of its senior professionals. Each holds an advanced degree in economics or a related field with extensive experience in his or her area of expertise, and each is a recognized expert in one or more of the areas of analysis and research shown below.

Public Utility Regulation (Electric, Gas, and Water/Wastewater)

<	Alternative regulatory structures	< Structure	ıl separation remedies
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- Rate structure and rate design < Local competition
- < Industry restructuring < Marginal costs and rates
- < Privatization < Rate of return
- < Wholesale/retail wheeling < Affiliate company relationships
- < Mergers and acquisitions < Revenue requirements < Costing methodologies < Utility financial condition
- < Imputation standards/non-accounting < Utility productivity studies safeguards
 - < Depreciation

Econometric and Energy Modeling

- < Demand and cost analysis Conservation and load management
- < Energy supply forecasting analysis
- < Load forecasting < Economic analysis of environmental policies

Industry Analysis

- < Electric utilities
- < Water/sewer utilities
- < Oil and natural gas

Cost/Benefit Analysis

Life-Cycle Cost Analysis

Financial Modeling and Analysis

Evaluation/Acquisition of Alternative Utility Supplies

ELECTRICITY

Exeter staff has been continuously involved in electric utility industry regulatory issues since the Company began operating in 1981, and the experience of its senior staff predates the formation of the Company. Exeter has provided expert witness testimony in hundreds of regulatory proceedings before state and federal regulatory commissions. This testimony has been on behalf of commission staffs, consumer advocates, and federal and state government clients. In addition, Exeter personnel have provided consulting and prepared reports/studies addressing broad policy issues facing particular states and industry-wide regulatory concerns. These testimonies and studies have involved such recent issues as industry restructuring, wholesale and retail open access, privatization of utility systems, stranded costs, contract evaluation/negotiation, and the development or evaluation of performance-based mechanisms (alternative forms of regulation) for electric utilities. Most recently, Exeter has also examined and provided testimony on renewable energy, energy conservation, demand response, procurement of default electricity supply service, and construction and siting of power plants.

Exeter staff has extensive experience in providing expert testimony and consulting on revenue requirements, rate of return, load forecasting, demand side management, depreciation, cost of service, prudency, rate design, fuel costs, purchase power costs, competition (both wholesale and retail), utility resource planning, cogeneration analysis and merger issues.

NATURAL GAS

Exeter Associates has been extensively involved in natural gas regulatory issues since the mid-1970's. After the adoption of Federal Energy Regulatory Commission (FERC) Order No. 636 and subsequent unbundling of interstate pipeline service in 1993, local gas distribution companies (LDCs) have become entirely responsible for the gas procurement function, a responsibility primarily borne by interstate pipelines prior to adoption of FERC Order No. 636. Exeter's engagements have included evaluation of LDC gas procurement practices and policies in the post-Order No. 636 environment on behalf of public utility commission (PUC) staffs and consumer advocates. Exeter has provided expert witness assistance to PUC staffs and consumer advocates in numerous regulatory proceedings before state and federal regulatory authorities addressing revenue requirements, cost allocation and rate design issues. Exeter professionals have advised state and federal clients concerning issues related to natural gas industry restructuring. This includes addressing issues such as performance-based gas procurement programs, stranded costs, unbundling of LDC services, and new regulations to promote competition under conditions of an evolving market structure. Exeter has also assisted clients in the direct procurement of natural gas supplies and contract negotiations in the continually evolving competitive gas acquisition markets.

WATER/WASTEWATER

Exeter Associates' personnel have extensive experience in designing water/wastewater rates, performing cost allocation studies, evaluating revenue requirements, and addressing other aspects of water and wastewater regulation. Because of the substantial capital improvements required by water utilities to comply with the quality standards of the Safe Drinking Water Act (SDWA) and its amendments, significant increases in water rates are often required. Exeter has extensive experience in addressing the allocation and recovery of SDWA-related costs.

In addition to the staff's providing expert testimony in numerous regulatory proceedings throughout the U.S. on behalf of state and federal government clients, Exeter personnel have assisted clients in negotiations for water supply, rates, service characteristics, and billing arrangements. In addition to these issues, Exeter personnel have addressed the adequacy of infrastructure, privatization of federally-owned water treatment and storage facilities and water distribution systems, and issues related to fire protection.

EXETER ASSOCIATES, INC. RECENT CLIENTS

Exeter Associates' professional staff members have served a broad range of client organizations including public service commissions, consumer advocates, government agencies and private firms. Recent clients include:

Argonne National Laboratory

Arkansas Public Service Commission

Brookhaven National Laboratory

California Energy Commission

Delaware Public Service Commission

Electric Power Research Institute (EPRI)

Fermi National Accelerator Laboratory

Georgia Consumers' Utility Counsel

Idaho National Engineering Laboratory

Illinois Citizens Utility Board

Indiana Office of Utility Consumer

Counselor

Kentucky Attorney General

Lawrence Berkeley National Laboratory

Lawrence Livermore National Laboratory

Louisiana Public Service Commission

Maine Public Advocate

Maine Public Utilities Commission

Maryland Department of the Environment

Maryland Energy Administration

Maryland People's Counsel

Maryland Power Plant Research Program

Maryland Public Service Commission

Minnesota Attorney General

National Association of Regulating Utility

Commissions

National Renewable Energy Laboratory

Nevada Public Service Commission

Nevada Test Site

New Jersey Department of Public Advocate

New Mexico Attorney General

New York State Electric & Gas

Northrop Grumman

Ohio Public Utilities Commission

Oklahoma Attorney General

Pennsylvania Office of Consumer Advocate

Rhode Island Public Utilities Commission

Stanford Linear Accelerator Center

Strategic Petroleum Reserve

U.S. Air Force

U.S. Department of Defense

U.S. Department of Energy

Vermont Public Service Board

Virginia Attorney General

West Virginia Consumer Advocate Division

EXETER ASSOCIATES, INC. KEY STAFF MEMBERS

Exeter Associates, Inc. specializes in serving clients engaged in litigative, policymaking, and decision-making activities and in providing the highest quality consulting services to clients in the areas of regulatory policy, industry restructuring, utility supply planning, contract negotiation, and on a wide range of other contemporary economic issues. The senior professional staff has provided expert testimony on numerous occasions before state, federal, and foreign regulatory agencies; state and federal courts, the Federal Energy Regulatory Commission, the U.S. Postal Rate Commission, and U.S. Congress and state legislative committees and subcommittees. Summaries of the qualifications of Exeter's senior staff are presented below:

MR. THOMAS S. CATLIN is a principal of Exeter Associates and a senior utility rate analyst with 35 years of experience in the review and analysis of the operation of public utilities. The emphasis of this work has been on utility rate regulation and has involved telephone, natural gas, electric and water companies. Mr. Catlin specializes in the areas of revenue requirements and class cost-of-service studies. He is thoroughly familiar with all the various aspects of ratemaking, the use of economic and engineering analytical techniques, rate base and operating income determination, and utility accounting. Mr. Catlin has also been involved in analyzing affiliate relations, alternative regulatory mechanisms, and regulatory restructuring issues. Mr. Catlin has testified before numerous state commissions and the Federal Energy Regulatory Commission. He holds a B.S. in physics and mathematics from the State University of New York at Stony Brook, and an M.S. in water resources engineering and management from Arizona State University. He is currently a member of the American Water Works Association (AWWA) Rates and Charges Subcommittee.

DR. STEVEN L. ESTOMIN is a principal of Exeter Associates and is a senior economist more than 30 years of experience in the areas of microeconomic applications, industry analysis, econometric modeling and environmental economics. He specializes in utility load forecasting, computer modeling, financial analysis, utility contract negotiation, cogeneration analysis, electric industry restructuring, power supply acquisition, and issues of competition and antitrust. Dr. Estomin has had major responsibility in evaluating long-term utility power supply options for U.S. Department of Energy and U.S. Air Force installations, and in negotiating long-term utility contracts for the U.S. government. Dr. Estomin has conducted electric sales and load forecasts for individual utility service areas and for the State of Maryland, and has testified on his review of electric sales forecasts prepared by utilities, including Pepco, Baltimore Gas & Electric Company, Commonwealth Edison, Central Maine Power, and Bangor Hydro. He has also testified on issues relating to statistical analysis, rate design, competition, and power supply acquisition for default supply service. Dr. Estomin holds a B.A., M.A., and Ph.D. in economics from the University of Maryland.

MR. DWIGHT D. ETHERIDGE is a principal at Exeter Associates with 27 years of wide ranging experience in the electric utility industry. His areas of expertise include retail competition, energy markets, risk management and control, distributed generation, telecommunications, contract rate negotiations, rate design, cost allocation and forecasting. As a consultant, Mr. Etheridge's work has included the development of long-term utility power supply options for U.S. Department of Energy and U.S. Air Force installations. While employed by an investor-owned utility, Mr. Etheridge held increasingly more responsible management positions in strategic, deregulation, pricing, and planning areas, including reporting to the CEO during electric deregulation and a merger of two utilities. Mr. Etheridge has extensive experience developing analytical and strategic solutions on a variety of utility issues and communicating on those issues to regulatory commissions, legislatures, senior management, boards of directors and the public. He has presented expert testimony on over 30 occasions and has acted as a spokesperson numerous times on television, radio and in print. Mr. Etheridge holds a B.S. in business administration from the University of California, Berkeley.

MR. JEROME D. MIERZWA is a principal of Exeter Associates and a senior analyst with 24 years of public utility regulatory experience. At Exeter, Mr. Mierzwa has conducted purchased gas cost allocation analysis and rate design analysis, management audits and similar investigations of the natural gas supply and procurement policies and practices of interstate gas pipelines and local distribution companies (LDCs). Most recently, Mr. Mierzwa has been involved in evaluating performance-based incentive regulation for LDC purchased gas costs and the unbundling of LDC services. Mr. Mierzwa has participated in developing utility class cost-of-service studies, has presented testimony sponsoring gas, water, and wastewater utility cost-of-service studies, least-cost gas procurement and incentive regulation, in addition to presenting testimony addressing utility rate base, expenses and revenues. Mr. Mierzwa holds a B.S. in marketing and an M.B.A. in finance from Canisius College.

MS. CHRISTINA R. MUDD is a principal at Exeter Associates, Inc. with 20 years of experience in energy efficiency, renewable energy, and climate change policy. With Exeter Ms. Mudd provides detailed analysis on the economic impacts of energy and environmental policies. Ms. Mudd participates in the Maryland staff working group for the Regional Greenhouse Gas Initiative, assists the Maryland Department of Natural Resources, Maryland Energy Administration and Maryland Department of Environment reviewing policies and programs related to electricity regulation, energy efficiency, renewable energy, and climate change. Ms. Mudd also provides technical support to federal agencies by reviewing utility supply contracts and rates, and reviewing the economic feasibility of alternative energy projects. Ms. Mudd served as the Executive Director of the National Council on Electricity Policy from January 2005 to December 2006. The National Council is a partnership between the National Association of Regulatory Utility Commissioners, National Association of State Energy Officials, National Governors' Association, and National Conference of State Legislators. Ms. Mudd holds a B.S. in political science and biology from James Madison University and an M.A. in international affairs with a concentration in economics and energy policy from Johns Hopkins University School for Advanced International Studies.

MR. KEVIN L. PORTER is a principal of Exeter Associates and a senior analyst with nearly 30 years of experience. Mr. Porter has been active in renewable energy analysis and research since 1984. His scope of expertise includes the technical and economic status of renewable energy technologies, design and implementation of state and federal renewable energy policies, transmission access and pricing for renewable energy technologies, and electricity policy in general. He has advised the National Renewable Energy Laboratory, the State of Maryland, the American Wind Energy Association, and other clients on renewable energy and green power procurement and policy design, and has written or co-written over 60 reports, conference papers, and journal articles. He holds a B.S. in environmental studies from Lewis & Clark College in Portland, Oregon, and an M.A. in economics from The American University in Washington, D.C.

MR. FELIPE A. SALCEDO is an economist at Exeter Associates, Inc. Mr. Salcedo has nine years of experience providing a full range of financial, rate, management, and consulting services to publicly-owned utilities and local governments. Clients served include water, wastewater, stormwater, and solid waste utility systems. Mr. Salcedo has successfully provided continuous financial consulting services to clients including municipal, cooperative and county-owned utility systems, community development, special purpose districts, and not-for-profit utility corporations located throughout the United States.

APPENDIX B

RELATED PRIOR PROJECTS

EXETER ASSOCIATES, INC. RECENT RELATED CASES

1. Aspect: Long-term Electricity Report for Maryland Companies: Baltimore Gas and Electric Company; Potomac Electric Power Company; Delmarva Power & Light Company; Allegheny Power Company; Southern Maryland Electric Cooperative

Jurisdiction: Maryland

Client: Maryland Department of Natural Resources, Power Plant Research Program

Description: Exeter, with Dr. Estomin acting as Project Manager, prepared a 20-year projection of electric energy and capacity costs for all transmission zones (as defined by the Ventyx Model) wholly or partially within Maryland. Cost projections were prepared for multiple scenarios (e.g., more stringent EPA regulations, high natural gas prices, slow load growth). Also projected were new power plant construction (when, where, type of plant, fuel) plant retirements (which power plants), emissions (CO₂, NO_x, SO_x, mercury), and zonal power imports and exports.

2. *Aspect*: Avoided Cost Analysis

Companies: All Maryland investor-owned utilities and the Southern Maryland Electric

Cooperative

Jurisdiction: Maryland

Client: Maryland Energy Administration and the Maryland Department of Natural Resources, Power Plant Research Program

Description: Exeter prepared estimates of the avoided costs of energy efficiency and conservation, by utility, for electric energy, capacity, natural gas, propane, and water/wastewater. This project was managed by Dr. Estomin.

3. *Aspect*: Default Service Filings

Companies: Metropolitan Edison; PPL; PECO Electric; Pike County Gas and Electric Company; Duquesne Power and Light Company; UGI Utilities, Pennsylvania Electric

Jurisdiction: Pennsylvania

Client: Pennsylvania Office of Consumer Advocate

Description: Dr. Estomin and certain other Exeter personnel reviewed company-proposed default service plans for residential customers, critically evaluated the proposals, and prepared and submitted testimony addressing issues related to those programs. Issues entailed power portfolio composition, solicitation timing issues, cost reconciliation, competitive augmentation program impacts, and others.

EXETER ASSOCIATES, INC. RECENT RELATED CASES (cont'd)

4. Aspect: Development of aggregated load solicitation for federal government loads

Jurisdiction: PJM

Client: U.S. Department of Defense, Defense Logistics Agency Energy

Description: Dr. Estomin worked within DLA Energy to develop an approach and solicitation to obtain competitively procured power for approximately 275 MW of federal government installation loads in Maryland, New Jersey, and Pennsylvania. This work resulted in an award of a 5-year contract that accommodated power supplies, renewable energy, risk hedging, and other items. Exeter also performed an audit of the contractor midway through the contract period and advised DLA Energy on power supply portfolio construction and cost allocation issues.

APPENDIX C

RESUMES OF PROJECT PERSONNEL STEVEN L. ESTOMIN JEROME D. MIERZWA BONNIE SHAMBLIN-GRAZIANO

STEVEN L. ESTOMIN

- Dr. Estomin is a principal at Exeter Associates, Inc. He is a senior economist whose academic training and professional experience are in the areas of microeconomic applications, industry analysis, econometric modeling and environmental economics. At Exeter, Dr. Estomin specializes in power supply procurement, utility load forecasting, regulatory policy, options analysis, utility contract negotiation, and issues of competition, antitrust, and damage estimation.
- Dr. Estomin has testified on issues related to load forecasting, statistical analysis, economic damage analysis, class cost-of-service, rate design, power supply procurement, and default electric service. He has prepared numerous electric load forecasts and has directed projects for state and federal regulatory agencies. Dr. Estomin has prepared reports on load forecasting, energy conservation, alternative power supply procurement, bulk power supply planning, and damage estimations for federal and state agencies and for private firms. He has also provided technical support to federal agencies in utility contract negotiations and in the development of requests for proposals for competitive power supply procurement.

Education

B.A. (Economics) – University of Maryland, 1975

M.A. (Economics) – University of Maryland, 1978

Ph.D. (Economics) – University of Maryland, 1986

Previous Employment

1980-1981 Faculty Researcher

Bureau of Business and Economic Research

University of Maryland College Park, MD

1976-1980 Research/Teaching Assistant and Instructor

University of Maryland, Department of Economics College Park, MD

1976-1978 Economist

U.S. Department of Labor, Bureau of International Labor Affairs, Office

of Trade Adjustment Assistance

Washington, D.C.

Professional Experience

- At the Bureau of Business and Economic Research, Dr. Estomin supervised the development of an environmental pollution forecasting model which he linked to a county level regional economic model. This task included developing submodels for industrial/commercial activity, municipal wastes generation, and transportation and energy-related emissions. Several reports and estimations using the model were provided to the Bureau of Land Management (U.S. Department of the Interior) and were used to develop analyses of future development of the outer-continental shelf.
- As a Graduate Teaching Assistant for the Department of Economics at the University of Maryland, Dr. Estomin was initially engaged in aiding senior faculty members in a variety of teaching-related tasks and later autonomously taught micro and macroeconomic theory courses. As an Instructor for the University, he taught upper-level courses in the economics of poverty and discrimination and the economics of American industry. As a Graduate Research Assistant, Dr. Estomin conducted extensive research in pollution abatement cost modeling.
- At the U.S. Department of Labor, Dr. Estomin collected firm-specific data covering sales, inventory, employment, and production and used these data together with industry production, employment, and import data to analyze causes of employment reductions. Companies analyzed by Dr. Estomin include American Motors Corporation, Bethlehem Steel, and numerous smaller firms.

Major Publications and Reports

- "Avoided Energy Costs in Maryland Assessment of the Costs Avoided through Energy Efficiency and Conservation Measures in Maryland," prepared for the Power Plant Research Program, Maryland Department of Natural Resources, April 2014 (with Michael Buckley, Kevin Porter, and Rebecca Widiss of Exeter Associates, Inc.)
- "Management/Performance Audit of the Alternative Energy Resource Rider of the First Energy Ohio Utility Companies for October 2009 through December 2011," prepared for the Public Utilities Commission of Ohio, June 2012.
- "Long-Term Electricity Report for Maryland," prepared for the Power Plant Research Program, Maryland Department of Natural Resources, December 2011 (with Sari Fink, Christina Mudd, and Michael Buckley of Exeter Associates, Inc.).
- "Maryland Power Plants and the Environment: A Review of the Impacts of Power Plants and Transmission Lines on Maryland's Natural Resources, Maryland Power Plant Research Program, PPRP-CEIR-15," January 2010 (with Christina Mudd, Sari Fink, and Jennifer Rogers of Exeter Associates, Inc. and contributing authors from Versar, Inc. and Environmental Resources Management).

- "Guidance for the Development of Renewable Energy Projects at Air Education and Training Command Bases," prepared for the U.S. Air Force, Air Force Civil Engineer Support Center (Tyndall AFB, Florida) and the Air Education and Training Command (Randolph AFB, Texas), January 2010 (with Christina Mudd and Sari Fink).
- "2009 Inventory of Renewable Energy Generators Eligible for the Maryland Renewable Energy Portfolio Standard," prepared for the Power Plant Research Program, Maryland Department of Natural Resources, January 2010 (with Christina Mudd and Sari Fink of Exeter Associates, Inc. and contributing authors from BCS, Inc.)
- "Maryland Power Plants and the Environment: A Review of the Impacts of Power Plants and Transmission Lines on Maryland's Natural Resources, Maryland Power Plant Research Program, PPRP-CEIR-14," January 2008 (with Christina Mudd and Sari Fink of Exeter Associates, Inc. and contributing authors from Versar, Inc. and Environmental Resources Management).
- "Forecasted Electric Energy Consumption and Peak Demands in Maryland," prepared for the Power Plant Research Program, Maryland Department of Natural Resources, November 2006 (with David Chen and Michael P. Lee).
- "Maryland's Options to Reduce and Stabilize Electric Power Prices Following Restructuring," prepared for the Power Plant Research Program, Maryland Department of Natural Resources and the Maryland Energy Administration, September 2006 (with Matthew I. Kahal).
- "The Potential for Biomass Co-Firing in Maryland," prepared for the Maryland Department of Natural Resources, Power Plant Research Program, March 2006 (with Christina Mudd and Michael Lee).
- "Wind Power Options Assessment," prepared for the Maryland Department of Natural Resources, Power Plant Research Program and the Maryland Energy Administration, January 2006 (with Matthew I. Kahal and Christina Mudd).
- "Electric Power Supply Options for Holloman Air Force Base, New Mexico," prepared for the U.S. Air Force, Air Force Civil Engineer Support Agency, September 2005.
- "Forecast of Electric Energy Consumption and Peak Demands in Maryland," prepared for the Power Plant Research Program, Maryland Department of Natural Resources, May 2005.
- "Economic Analysis of a Power Plant Fueled by Poultry Litter to be Located on Maryland's Eastern Shore," prepared for the Power Plant Research Program, Maryland Department of Natural Resources, May 2005.
- "Yucca Mountain Project Evaluating Alternative Electric Power Service Options," prepared for the U.S. Department of Energy, Federal Energy Management Program, August 2004.

- "Short-term Steam Supply options for the Savannah River Site," prepared for the U.S. Department of Energy, Federal Energy Management Program, June 2004.
- "Assessment of Economic Damages," prepared for Supra Telecommunications and Information Systems, Inc., CPR Institute for Arbitral Tribunal, Supra Telecommunications and Information Systems v. BellSouth Telecommunications, Arbitration V, October 2003 (with Marvin H. Kahn).
- "Costs and Benefits for Overhead/Underground Utilities," prepared for the Maryland State Highway Administration, October 2003 (with William H. Albeck).
- "Economic Assessment of Damages," prepared for Supra Telecommunications and Information Systems, Inc., U.S. District Court, Southern District of Florida, Case No. 99-1706, March 2003 (with Marvin H. Kahn).
- "Forecasted Electric Energy Consumption and Peak Demand in Maryland," prepared for the Power Plant Research Program, Maryland Department of Natural Resources, October 2002.
- "The Technical Potential for Electric Energy Conservation in Maine," prepared for the Maine Office of Consumer Advocate, September 2002.
- "Energy Conservation and Efficiency Baseline," prepared for Governor Paris N. Glendening's Task Force on Energy Conservation and Efficiency, the Maryland Energy Administration, and the Maryland Department of Natural Resources, December 2001 (with Allan R. Evans and Michael P. Lee).
- "Alternative Electricity and Natural Gas Procurement Strategies for U.S. Department of Defense Installations," prepared for the U.S. Department of Defense, Defense Logistics Agency, Defense Energy Support Center, July 2001 (with Richard A. Galligan).
- "Electricity in Maryland Fact Book," prepared for the Power Plant Research Program, Maryland Department of Natural Resources, January 2001.
- "Steam Supply Options Analysis for the Savannah River Site," prepared for the U.S. Department of Energy, March 2000.
- "The Feasibility of a Renewables Portfolio Standard in Maryland," prepared for the Power Plant Research Program, Maryland Department of Natural Resources and the Maryland Energy Administration, January 2000.
- "Undergrounding Electric Utility Lines in Maryland," prepared for the Maryland Energy Administration and the Power Plant Research Program, Maryland Department of Natural Resources for the Governor's Task Force on Utility Preparedness, December 1999.

- "Nevada Test Site Utility Options Study," prepared for the U.S. Department of Energy, June 1999.
- "Spallation Neutron Source Electrical Facilities Study," prepared for the U.S. Department of Energy, April 1999.
- "Forecasted Electric Power Demands for the Delmarva Power and Light Company," prepared for the Power Plant Research Program, Maryland Department of Natural Resources, December 1998 (with Andrés Escalante).
- "Assessment of DOD Electric Power Supply Options, Strategies, and Costs under Retail Open Access," prepared for the U.S. Department of Defense, Office of the Deputy Under Secretary of Defense, February 1998.
- "The Engineering and Economic Feasibility of Using Poultry Litter as a Fuel to Generate Electric Power at Maryland's Eastern Correctional Institute," prepared for the Maryland Environmental Service, February 1998 (with Gary Walters).
- "Power Supply and Cogeneration Options for the Eastern Correctional Institute," prepared for the Maryland Environmental Service," April 1997 (with Thomas King, P.E.)
- "Cooperative Integrated Resource Plan for U.S. Department of Energy Installations Having Power Allocations from the Western Area Power Administration," prepared for the U.S. Department of Energy, June 1997.
- "Cooperative Integrated Resource Plan for U.S. Navy Installations Having Power Allocations from the Western Area Power Administration," prepared for the U.S. Navy, SOUTHWESTNAVFACENGDIV, June 1997.
- "Cooperative Integrated Resource Plan for U.S. Air Force Installations Having Power Allocations from the Western Area Power Administration," prepared for HQ AFCESA/CESE (Tyndall Air Force Base, Florida), June 1997.
- "Analysis of Service Reliability -- Duquesne Light Company," prepared for the Pennsylvania Office of Consumer Advocate, June 1997.
- "Estimated Power Supply Costs for the Accelerator Production of Tritium Project," prepared for the U.S. Department of Energy, Office of Project and Fixed Asset Management, October 1996.
- "Customized Energy Conservation and Demand-Side Management Agreements between U.S. Air Force Bases and Utility Service Suppliers," prepared for HQ AFCESA/CESE (Tyndall Air Force Base, Florida), January 1996 (with Richard I. Chais).

- "Evaluating and Implementing Privatization of Utility Distribution Systems at U.S. Air Force Bases," prepared for HQ AFCESA/CESE (Tyndall Air Force Base, Florida), December 1995 (with Richard I. Chais).
- "Power Supply Options Study for Vandenberg Air Force Base," prepared for HQ AFCESA/CESE (Tyndall Air Force Base), December 1995 (with Richard Zumwalt, P.E.).
- "U.S. Department of Energy Savannah River Site Power System Privatization Study," prepared for the U.S. Department of Energy, February 1995 (with Richard Zumwalt, P.E.).
- "Technical Report: Special Study of the MacDill Cogeneration Project," prepared for the Department of the Air Force, Headquarters Air Combat Command, May 1994.
- "The Feasibility of Centralized Purchase of Electric Utility Service," prepared for the Department of the Air Force, March 1994.
- "Long Range Energy Requirements for Charleston Air Force Base," (two volumes), prepared for the Department of the Air Force, July 1994.
- "Long Range Energy Requirements for Wright-Patterson Air Force Base," (three volumes) prepared for the Department of the Air Force, Headquarters Air Force Logistics Command, April 1993.
- "Forecasted Electric Power Demands for the Potomac Electric Power Company," (two volumes), prepared for the Power Plant Research Division, Maryland Department of Natural Resources, March 1992 (with John E. Beach).
- "Optimal Allocation of Western Area Power Administration (Billings Area) Federal Preference Power Among Ellsworth, Minot, and Offutt Air Force Bases," prepared for the U.S. Air Force, November 1991.
- "Impacts of Missile Site Deactivation on Electric Power Costs," *Environmental Impact Statement -- Deactivation of the Minuteman II Missile Wing at Ellsworth Air Force Base, South Dakota*, prepared for the Department of the Air Force, Headquarters Strategic Air Command, October 1991.
- "Forecasted Electric Power Demands for the Baltimore Gas and Electric Company," (two volumes), prepared for the Power Plant and Environmental Review Division, Maryland Department of Natural Resources, May 1991 (with John E. Beach).
- "Forecasted Electric Power Demands for the Delmarva Power and Light Company," (two volumes), prepared for the Power Plant and Environmental Review Division, Maryland Department of Natural Resources, September 1990 (with John E. Beach).

- "Year 2000 Power Supply Reliability Assessment: SERC and SPP Regions," prepared for the U.S. Air Force, August 1990 (with Dennis Goins).
- "Market and Regulatory Effects of the Elimination of the Manufacturing Restriction on the Regional Bell Operating Companies," prepared for the Telecommunications Committee of the National Association of State Utility Consumer Advocates (NASUCA), November 1989.
- "Alternative Electric Power Supply Sources for Onizuka Air Force Base, California," prepared for the U.S. Air Force, June 1989.
- "Vandenberg Air Force Base Power Supply Study," prepared for the U.S. Air Force, March 1989.
- "Forecasted Electric Power Demands for the Potomac Electric Power Company," (two volumes), prepared for the Power Plant Research Program, Maryland Department of Natural Resources, July 1988 (with Walter Asmuth, III).
- "Economic Damage Estimation -- Pittcon Industries, Inc.," Exeter Associates, Inc., prepared for Pittcon Industries, Inc., February 1988 (with Marvin H. Kahn).
- "Report and Recommendations of the U.S. Air Force on Adjustments to the Mather AFB Surcharge," prepared for the U.S. Air Force for submission to the Board of Directors of the Sacramento Municipal Utility District, August 1987.
- "Preliminary Assessment of Options Available to the U.S. Air Force to Reduce Electric Power and Energy Costs to the Northern California Air Force Bases," Exeter Associates, Inc., prepared for the U.S. Air Force, March 1987.
- "An Analysis of the Optimal Allocation of Available Western Area Power Administration Preference Power Among the Northern California Air Force Bases," Exeter Associates, Inc., prepared for the U.S. Air Force, March 1987.
- "A Survey of Methods Used to Estimate Conservation Potential," Exeter Associates, Inc., prepared for the Power Plant Research Program, Maryland State Department of Natural Resources, February 1987.
- "End-Use Forecasting," presentation at the Power Plant Research Program Load Forecasting Workshop, Annapolis, Maryland, January 1987 (published in proceedings volume).
- "Survey and Analysis of End-Use Modeling Practices," Exeter Associates, Inc., prepared for the Power Plant Research Program, Maryland State Department of Natural Resources, October 1986.
- '"Economic Damage Estimation -- Yacht Buyers Group," Exeter Associates, Inc., prepared for Yacht Buyers Group, Inc., August 1986 (with Marvin H. Kahn).

- "Updated Load Forecast of Energy and Peak Demand for the Allegheny Power System," Exeter Associates, Inc., prepared for the Power Plant Research Program, Maryland State Department of Natural Resources, June 1986 (with Matthew I. Kahal).
- The Determinants of Profitability and Premiums in Conglomerate Mergers, Ph.D. dissertation, University of Maryland, 1986.
- "Updated Load Forecast of Energy and Peak Demand on the Delmarva Peninsula," Exeter Associates, Inc., prepared for the Power Plant Siting Program, Maryland State Department of Natural Resources, February 1986 (with Matthew I. Kahal).
- "Estimated Value of Experimental Breeder Reactor II Generation to the Idaho National Engineering Laboratory -- 1985 Through 1986," Exeter Associates, Inc., prepared for the Idaho National Engineering Laboratory, U.S. Department of Energy, January 1986.
- "An Economic Estimation of Electric Power Demands for the Baltimore Gas and Electric Company," (two volumes), Exeter Associates, Inc., prepared for the Power Plant Siting Program, Maryland State Department of Natural Resources, April 1985 (with Matthew I. Kahal).
- "An Assessment of the State-of-the-Art of Gas Utility Load Forecasting," (with Thomas Bacon, Jr. and Matthew I. Kahal) published in the *Proceedings of the Fourth NARUC Biennial Regulatory Information Conference*, 1984.
- "Projected Electric Power Demands for the Potomac Electric Power Company," (three volumes), Exeter Associates, Inc., prepared for the Power Plant Siting Program, Maryland State Department of Natural Resources, March 1984 (with Matthew I. Kahal).
- "Economic and Demographic Forecasts for the PEPCO Service Area," Exeter Associates, Inc., prepared for the Power Plant Siting Program, Maryland State Department of Natural Resources, September 1982.
- "The Behavior of Regulatory Agencies," published in *Attacking Regulatory Problems: An Agenda for Research in the 1980's*. (Allen Furgeson, ed.), Ballinger Publishers, Cambridge, Massachusetts, 1981 (with Wes Magat).
- "Report on the Environmental Impacts from Outer-Continental Shelf Development in the Baltimore Canyon," Bureau of Business and Economic Research, University of Maryland, prepared for the Bureau of Land Management, U.S. Department of the Interior, September 1980 (with Virginia McConnell).
- "The Environmental Systems Model," Bureau of Business and Economic Research, University of Maryland, June 1980 (with Virginia McConnell).

"Economic-Environmental Models of Regional Development -- The U.S. Experience," Department of Economics Working Paper 80-15, University of Maryland, November 1979 (with John H. Cumberland and Alan Krupnick).

Expert Testimony

- Before the Public Service Commission of Maryland in Case No. 9318, Application of Dominion Cove Point LNG for a Certificate of Public Convenience and Necessity to Construct a Nominal 130 MW Generating Facility in Calvert County, Maryland, 2014, for the Power Plant Research Program, Maryland Department of Natural Resources. Testified on economic costs and benefits.
- Before the Pennsylvania Public Utility Commission in Docket Nos. P-2013-2391368, P-2013-2391372, P-2013-2391375, and P-2013-2391378, Metropolitan Edison Company, Pennsylvania Electric Company, Pennsylvania Power Company, and West Penn Power Company, 2014, for the Pennsylvania Office of Consumer Advocate. Testified on Default Service issues.
- Before the Public Utility Commission of Ohio in Case No. 11-5201-EL-RDR, Ohio Edison Company, Cleveland Electric Illuminating Company, and Toledo Edison Company, 2013, for the Public Utility Commission of Ohio Staff. Testified on renewable energy procurement issues.
- Before the Pennsylvania Public Utility Commission in Docket Nos. P-2009-2135496 and G-2009-2135510, UGI Utilities, Inc., 2010, for the Pennsylvania Office of Consumer Advocate. Testified on Default Service issues.
- Before the Pennsylvania Public Utility Commission in Docket No. P-2009-2094494, PECO Energy Company, 2009, for the Pennsylvania Office of Consumer Advocate. Testified on acquisition of solar energy credits.
- Before the Pennsylvania Public Utility Commission in Docket No. P-2008-2022931, UGI Utilities, Inc., 2008, for the Pennsylvania Office of Consumer Advocate. Testified on Default Service issues.
- Before the Maryland Public Service Commission in Case No. 9117, Investigation of Investor-Owned Electric Companies' Standard Offer Service for Residential and Small Commercial Customers in Maryland, 2008, for the Maryland Energy Administration. Testified on Standard Offer Service issues.
- Before the Pennsylvania Public Utility Commission in Docket No. P-0072305, Pennsylvania Power Company, 2007, for the Pennsylvania Office of Consumer Advocate. Testified on Default Service issues.

- Before the Maryland Public Service Commission in Case No. 9099, Baltimore Gas and Electric Company, 2007, for the Maryland Department of Natural Resources. Testified on market-related issues, Standard Offer Service prices, and Standard Offer Service Procurement Issues.
- Before the Pennsylvania Public Utility Commission in Docket No. P-00662227, PPL Electric Utilities Corporation, 2006, for the Pennsylvania Office of Consumer Advocate. Testified of Provider of Last Resort service.
- Before the Maryland Public Service Commission in Case No. 9063, Investigation into the Optimal Structure of the Electric Utility Industry in Maryland, 2006, for the Power Plant Research Program, Maryland Department of Natural Resources and the Maryland Energy Administration. Testified on standard offer service issues, customer choice, demand-side management and energy efficiency, and market-related issues.
- Before the Pennsylvania Public Utility Commission in Docket No. P-00052188, Pennsylvania Power Company, 2005, for the Pennsylvania Office of Consumer Advocate. Testified on Provider of Last Resort service.
- Before the Maryland Public Service Commission in Case No. 9018, Potomac Edison Company, 2005, for the Maryland Department of Natural Resources, Power Plant Research Program. Testified on jurisdictional cost impacts of proposed transmission and distribution facilities.
- Before the Maine Public Utilities Commission in Docket No. 2004-339, Central Maine Power Company, 2004, for the Maine Public Advocate. Testified on sales forecasting issues.
- Before the Maine Public Utilities Commission in Docket No. 2002-770, Central Maine Power Company, 2003, for the Maine Public Advocate. Testified on load forecasting issues.
- Before the Maine Public Utilities Commission in Docket No. 2001-239, Bangor Hydro Electric Company, 2001, for the Maine Public Advocate. Testified on load forecasting issues.
- Before the Maine Public Utilities Commission in Docket No. 2001-232, Central Maine Power Company, 2001, for the Maine Public Advocate. Testified on load forecasting issues.
- Before the Kentucky Public Service Commission in Case No. 99-070, Western Kentucky Gas Company, 1999, for the Office of Rate Intervention of the Attorney General. Testified on functionalization of distribution system costs.
- Before the Kentucky Public Service Commission in Case No. 99-176, Delta Natural Gas Company, Inc., 1999, for the Office of Rate Intervention of the Attorney General. Testified on functionalization of distribution system costs.

- Before the Maine Public Utilities Commission in Docket No. 97-580, Central Maine Power Company, 1998, for the MPUC Staff. Testified on generation-related administrative and general expenses.
- Before the Maine Public Utilities Commission in Docket No. 96-116, Bangor Hydro Electric Company, 1997, for the MPUC Staff. Testified on load forecasting issues.
- Before the New Mexico Public Service Commission, El Paso Electric Company, 1996, for the U.S. Air Force. Testified on rate design issues.
- Before the State of Rhode Island and Providence Plantation Public Utilities Commission in Docket No. 2290, Narragansett Electric Company, 1995, for the Division of Public Utilities and Carriers. Testified on load forecasting issues.
- Before the Illinois Commerce Commission in Docket No. 94-0065, Commonwealth Edison Company, June 1994, for the U.S. Department of Energy. Testified on load forecasting.
- Before the Federal Energy Regulatory Commission in Docket No. RP91-203, <u>et al.</u>, Tennessee Gas Pipeline Company, May 1994, for the Tennessee Rate Design Customer Group. Testified on issues related to econometric analysis.
- Before the Public Service Commission of the District of Columbia in Formal Case No. 926, Chesapeake and Potomac Telephone Company, September 1993, for the Office of People's Counsel. Testified on issues related to finance and statistical analysis.
- Before the Public Service Commission of the District of Columbia in Formal Case No. 814, Phase III, Chesapeake and Potomac Telephone Company, October 1992, for the Office of People's Counsel. Testified on issues related to competition in the telecommunications industry.
- Before the Maine Public Utilities Commission in Docket No. 92-101, Maine Public Service Company, September 1992, for the Commission Staff. Testified on load forecasting.
- Before the Maryland Public Service Commission in Case No. 8413, Potomac Electric Power Company, March 1992, for the Maryland Power Plant Research Division. Testified on load forecasting.
- Before the State of New Jersey Board of Regulatory Commissioners in Docket No. GF91081393J, New Jersey Natural Gas Company, March 1992, for the Division of Rate Counsel. Testified on weather normalization.
- Before the State of Rhode Island and Providence Plantations Public Utilities Commission in Docket 2019, Narragansett Electric Company, November 1991, for the Division of Public Utilities and Carriers. Testified on load forecasting.

- Before the Maine Public Utilities Commission in Docket No. 91-010, Bangor Hydro-Electric Company, June 1991, for the Maine Public Advocate. Testified on load forecasting.
- Before the Maryland Public Service Commission in Case No. 8241, Phase II, Baltimore Gas and Electric Company, May 1991, for the Maryland Power Plant and Environmental Review Division. Testified on load forecasting.
- Before the State of Rhode Island and Providence Plantations Public Utilities Commission in Docket 1976, Narragansett Electric Company, October 1990, for the Revision of Public Utilities and Carriers. Testified on load forecasting.
- Before the Maryland Public Service Commission in Case No. 8201, Delmarva Power and Light Company, October 1990, for the Maryland Power Plant and Environmental Review Division. Testified on load forecasting.
- Before the Maine Public Utilities Commission in Docket No. 90-076, Central Maine Power Company, September 1990, for the Maine Public Advocate. Testified on load forecasting.
- Before the Public Service Commission of the District of Columbia in Formal Case No. 890, District of Columbia Natural Gas, February 1990, for the Office of People's Counsel of the District of Columbia. Testified on load forecasting.
- Before the Maryland Public Service Commission in Case No. 8102, Southern Maryland Cooperative, July 1988, for the Maryland Power Plant Research Program. Testified on load forecasting.
- Before the Maryland Public Service Commission in Case No. 8063 Phase II, Potomac Electric Power Company, July 1988, for the Maryland Power Plant Research Program. Testified on load forecasting.
- Before the U.S. District Court for the Eastern District of Pennsylvania in Civil Action No. 87-0805, March 1988, for Pittcon Industries, Inc. Testified on economic damages.
- Before the Sacramento Municipal Utility District Board, September 1987, for the U.S. Air Force. Testified on the applicability and appropriate calculation of a special surcharge.
- Before the Sacramento Municipal Utility District Board, September 1987, for the U.S. Air Force. Testified on cost estimation and cost allocation.
- Before the Sacramento Municipal Utility District Board, February 1987, for the U.S. Air Force. Testified on rate design and cogeneration.

Before the Vermont Public Service Board in Docket No. 4661, Green Mountain Power Corporation, November 1982, for the Vermont Department of Public Service. Testified		
on production planning, fuel costs, and maintenance scheduling for nuclear plant on behalf of the Vermont Public Service Board.		
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JEROME D. MIERZWA

Mr. Mierzwa is a Principal of Exeter Associates, Inc., with over 20 years of public utility regulatory experience. At Exeter, Mr. Mierzwa has been involved in purchased gas cost allocation analysis and rate design analysis, conducting management audits and similar investigations of the natural gas supply and procurement policies and practices of local distribution companies (LDCs), and has provided assistance in proceedings before the Federal Energy Regulatory Commission (FERC). Mr. Mierzwa has participated in the planning of natural gas procurements for major federal installations located in various regions of the country. Mr. Mierzwa has been involved in evaluating performance-based incentive regulation for LDC purchased gas costs and the unbundling of LDC services. Mr. Mierzwa has participated in developing utility class cost-of-service studies, has presented testimony sponsoring gas, water and wastewater utility cost-of-service studies, least cost gas procurement and incentive regulation, in addition to presenting testimony addressing utility rate base and revenues.

Education

B.S. (Marketing) – Canisius College, Buffalo, New York, 1981

M.B.A. (Finance) – Canisius College, Buffalo, New York, 1985

Gas Rates Fundamental Course, June 1987, University of Wisconsin, sponsored by the American Gas Association.

Previous Employment

1986-1990 Rate Analyst

National Fuel Gas Company

Buffalo, New York

Previous Experience

Prior to joining Exeter in 1990, Mr. Mierzwa served as a rate analyst at National Fuel Gas Supply Corporation, an interstate pipeline. In that position, he was involved in preparing purchased gas adjustment filings and reviewing the rate filings of interstate pipeline suppliers. Mr. Mierzwa was also involved in preparing supplier rate, gas sales, and gas purchase price forecasts, examining the rate implications of storage activity, and analyzing rate of return, cash working capital, and potential merger and acquisition candidates.

Presentations

- The NASUCA annual meetings in San Antonio, Texas, November 1991 (presentation concerning the FERC Mega-NOPR proceeding which led to the adoption of FERC Order No. 636).
- The NASUCA annual meetings in Reno, Nevada, November 1994 (presentation concerning spot market gas incentive procurement programs).

Expert Testimony

- Columbia Gas of Ohio (Public Utilities Commission of Ohio, Case No. 90-17-GA-GCR), November 1990. Co-authored report on audit of management and performance of gas purchasing on behalf of the Public Utilities Commission of Ohio. (Findings and recommendations were stipulated to without cross-examination.)
- City of Great Falls Wastewater Utility (Montana Public Service Commission Docket No. 90.10.66), March 1991. Presented a cost of service study on behalf of the U.S. Air Force.
- City of Great Falls Water Utility (Montana Public Service Commission Docket No. 90.10.67), March 1991. Presented a cost of service study on behalf of the U.S. Air Force.
- Cincinnati Gas & Electric Company (Public Utilities Commission of Ohio, Case No. 91-16-GA-GCR), October 1991. Co-authored report on audit of management and performance of gas purchasing on behalf of the Public Utilities Commission of Ohio. (Findings and recommendations were stipulated to without cross-examination.)
- Louisiana Gas Service Company (Louisiana Public Service Commission Docket No. U-19237), December 1991. Testified on rate base including cash working capital, cost allocation and rate design on behalf of the Louisiana Public Service Commission.
- Equitable Gas Company and Jefferson Gas Company (Pennsylvania Public Utility Docket No. R-00912164), April 1992. Presented a revised forecast of test year sales and revenues on behalf of the Pennsylvania Office of Consumer Advocate.
- Peoples Natural Gas Company (Pennsylvania Public Utility Docket Nos.

 R-00922180 and R-00922206), May 1992. Presented testimony sponsoring a revised forecast of purchased gas costs and on least cost gas procurement on behalf of the Pennsylvania Office of Consumer Advocate.

- UGI Utilities, Inc., Gas Utility Division (Pennsylvania Public Utility Docket No. R-922323), July 1992. Presented testimony on the allocation of purchased gas costs and the projection of purchased gas costs on behalf of the Pennsylvania Office of Consumer Advocate.
- Providence Water Supply Board (Rhode Island Public Utilities Commission Docket No. 2048), August 1992. Presented testimony sponsoring a class cost of service study, cash working capital and revenues on behalf of the Division of Public Utilities and Carriers.
- Dallas, Harvey's Lake, Noxen and Shavertown Water Companies (Pennsylvania Public Utility Docket Nos. R-922326, R-922327, R-922328 and R-922329) September 1992. Presented testimony on rate base and net operating income issues on behalf of the Pennsylvania Office of Consumer Advocate.
- Columbia Gas of Ohio (Public Utilities Commission of Ohio, Case No. 92-18-GA-GCR).

 January 1993. Co-authored report on audit of management and performance of gas purchasing on behalf of the Public Utilities Commission of Ohio.
- National Fuel Gas Distribution Corporation (Pennsylvania Public Utility Docket No. R-00922499), March 1993. Presented testimony on the allocation of purchased gas costs, FERC Order No. 636 transition costs and the projection of purchased gas costs on behalf of the Pennsylvania Office of Consumer Advocate.
- Philadelphia Suburban Water Company (Pennsylvania Public Utility Docket No. R-00922476), March 1993. Presented testimony addressing test year revenues and expenses on behalf of the Pennsylvania Office of Consumer Advocate.
- The Peoples Natural Gas Company (Pennsylvania Public Utility Docket No. R-00932598), May 1993. Presented testimony on the allocation of purchased gas costs, FERC Order No. 636 transition costs and least cost gas procurement on behalf of the Pennsylvania Office of Consumer Advocate.
- Dauphin Consolidated Water Supply Company and General Waterworks of Pennsylvania, Inc. (Pennsylvania Public Utility Docket No. R-00932604), June 1993. Presented testimony addressing test year net operating income on behalf of the Pennsylvania Office of Consumer Advocate.
- National Fuel Gas Distribution Corporation (Pennsylvania Public Utility Docket No. R-00932548), July 1993. Presented testimony addressing test year revenues and FERC Order No. 636 transition costs on behalf of the Pennsylvania Office of Consumer Advocate.
- National Fuel Gas Supply Corporation (Federal Energy Regulatory Commission Docket No. RP93-73-000), July 1993. Presented testimony addressing test year throughput and rate design on behalf of the Pennsylvania Office of Consumer Advocate.

- UGI Utilities, Inc., Gas Utility Division (Pennsylvania Public Utility Docket No. R-00932674), July 1993. Presented testimony on the allocation of purchased gas costs, FERC Order No. 636 transition costs and least cost gas procurement on behalf of the Pennsylvania Office of Consumer Advocate.
- Sierra Pacific Power Company, Gas Operations (Nevada Public Service Commission Docket No. 93-4087), September 1993. Presented testimony on the allocation of purchased gas costs to electric and gas operations on behalf of the Nevada Office of Consumer Advocate.
- Ohio Gas Company (Public Utilities Commission of Ohio, Case No. 93-14-GA-GCR), October 1993. Co-authored report on audit of management and performance of gas purchasing on behalf of the Public Utilities Commission of Ohio.
- UGI Utilities, Inc., Gas Utility Division (Pennsylvania Public Utility Docket No. R-00932927), March 1994. Presented testimony on transportation service balancing requirement modifications and service enhancements in response to FERC Order No. 636 on behalf of the Pennsylvania Office of Consumer Advocate.
- National Fuel Gas Distribution Corporation (Pennsylvania Public Utility Docket No. R-00932885), April 1994. Presented testimony addressing the allocation of purchased gas costs, FERC Order No. 636 transition costs, incentive rate mechanisms, and the projection of purchased gas costs on behalf of the Pennsylvania Office of Consumer Advocate.
- The Peoples Natural Gas Company (Pennsylvania Public Utility Docket No. R-00943028), April 1994. Presented testimony addressing the allocation of purchased gas costs, FERC Order No. 636 transition costs, take-or-pay costs, incentive rate mechanisms and the projection of purchased gas costs on behalf of the Pennsylvania Office of Consumer Advocate.
- Citizens Gas & Coke Utility (Indiana Utility Regulatory Commission, Cause No. 37399-GCA41), May 1994. Presented testimony addressing the allocation and recovery of Order No. 636 transition costs on behalf of the Indiana Utility Consumer Counselor.
- UGI Utilities, Inc., Gas Utility Division (Pennsylvania Public Utility Docket No. R-00943064), July 1994. Presented testimony addressing the allocation of purchased gas costs and incentive rate mechanisms on behalf of the Pennsylvania Office of Consumer Advocate.
- National Gas & Oil Corporation (Public Utilities Commission of Ohio, Case No. 94-221-GA-GCR), October 1994. Co-authored report on audit of management and performance of gas procurement activity on behalf of the Public Utilities Commission of Ohio.
- Trans Louisiana Gas Company (Louisiana Public Service Commission, Docket No. U-19997), November 1994. Presented testimony addressing the results of a Commission-ordered investigation into the purchased gas adjustment clause of Trans Louisiana Gas Company on behalf of the Louisiana Public Service Commission Staff.

- NorAm Gas Transmission Company (Federal Energy Regulatory Commission Docket No. RP94-343-000), March 1995. Presented testimony addressing rate design billing determinants and the treatment of revenues associated with short term firm, interruptible and other services on behalf of the Arkansas and Louisiana Public Service Commissions.
- UGI Utilities, Inc., Gas Utility Division (Pennsylvania Public Utility Docket No. R-00953297), May 1995. Presented testimony addressing the allocation of purchased gas costs on behalf of the Pennsylvania Office of Consumer Advocate.
- The Peoples Natural Gas Company (Pennsylvania Public Utility Docket No. R-00953318), May 1995. Presented testimony addressing the acquisition of capacity resources, transportation balancing charges, performance-based incentive programs and lost and unaccounted-for and company use gas.
- National Fuel Gas Distribution Corporation (Pennsylvania Public Utility Docket No. R-00953299), June 1995. Presented testimony addressing storage working capital requirements, heating degree days to be utilized for weather normalization purposes and sponsored a class cost of service on behalf of The Pennsylvania Office of Consumer Advocate.
- UGI Utilities, Inc., Gas Utility Division (Pennsylvania Public Utility Docket No. R-00953374), July 1995. Presented testimony addressing the acquisition of interstate pipeline capacity and the allocation of purchased gas costs on behalf of The Pennsylvania Office of Consumer Advocate.
- Atlanta Gas Light Company (Georgia Public Service Commission Docket No. 5650-U), August 1995. Presented testimony addressing operations of the Company's purchased gas adjustment mechanism and gas procurement practices and policies on behalf of the Georgia Consumers' Utility Counsel.
- United Cities Gas Company (Georgia Public Service Commission Docket No. 5651-U), August 1995. Presented testimony addressing the allocation of purchased gas costs on behalf of the Georgia Consumers' Utility Counsel.
- Eastern and Pike Natural Gas Companies (Public Utilities Commission of Ohio, Case Nos. 95-215-GA-GCR and 95-216-GA-GCR), September 1995. Co-authorized report on audit of management and performance of gas procurement activity on behalf of the Public Utilities Commission of Ohio.
- Tennessee Gas Pipeline Company (Federal Energy Regulatory Commission Docket No. RP95-112-000), September 1995. Presented testimony addressing rate design determinants and revenues associated with long term firm, short term firm and interruptible services on behalf of the Pennsylvania Office of Consumer Advocate.

- North Shore Gas Company and Peoples Gas Light and Coke Company (Illinois Commerce Commission Docket Nos. 95-0490 and 95-0491), January 1996. Presented testimony evaluating performance-based rate programs for purchased gas costs on behalf of the Citizens Utility Board.
- National Fuel Gas Distribution Corporation (Pennsylvania Public Utility Docket No. R-00953487), March 1996. Presented testimony addressing incentive rate mechanisms, the allocation of purchased gas costs and unauthorized service on behalf of the Pennsylvania Office of Consumer Advocate.
- The Peoples Natural Gas Company (Pennsylvania Public Utility Docket No. R-00963563), May 1996. Presented testimony addressing the allocation of purchased gas costs and the projection of purchased gas costs on behalf of the Pennsylvania Office of Consumer Advocate.
- North Penn Gas Company and PFG Gas, Inc. (Pennsylvania Public Utility Docket No. R-00963636), July 1996. Presented testimony addressing the recovery of excess interstate pipeline capacity costs on behalf of the Pennsylvania Office of Consumer Advocate.
- Dayton Power & Light Company (Public Utilities Commission of Ohio, Case No. 96-220-GA-GCR), September 1996. Co-authored report on audit of management and performance of gas purchasing on behalf of the Public Utilities Commission of Ohio.
- West Ohio Gas Company (Public Utilities Commission of Ohio, Case No. 96-221-GA-GCR), November 1996. Co-authored report on audit of management and performance of gas purchasing on behalf of the Public Utilities Commission of Ohio.
- Northern Illinois Gas Company (Illinois Commerce Commission Docket No. 96-0386), November 1996. Presented testimony evaluating performance-based rate programs for purchased gas costs on behalf of the Citizens Utility Board.
- National Fuel Gas Distribution (Pennsylvania Public Utilities Commission Docket No. R-00963779), March 1997. Presented testimony addressing the allocation of purchased gas costs and gas procurement practices and policies on behalf of the Pennsylvania Office of Consumer Advocate.
- Equitable Gas Company (Pennsylvania Public Utilities Commission Docket No. R-00973895), May 1997. Presented testimony addressing the allocation of purchased gas costs and gas procurement practices and policies on behalf of the Pennsylvania Office of Consumer Advocate.
- Southwest Gas Corporation (Nevada Public Service Commission Docket No. 97-2005), June 1997. Presented testimony addressing the allocation of purchased gas costs and gas procurement practices and policies on behalf of the Nevada Office of Consumer Advocate.

- Kent County Water Authority, (Rhode Island Public Utilities Commission Docket No. 2555), June 1997. Presented class cost of service testimony on behalf of the Division of Public Utilities and Carriers.
- UGI Utilities, Inc., Gas Utility Division (Pennsylvania Public Utility Docket No. R-00974012), July 1997. Presented testimony on the allocation of purchased gas costs, and the computation of off-system sales margins and margin sharing procedures on behalf of the Pennsylvania Office of Consumer Advocate.
- Pennsylvania American Water Company (Pennsylvania Public Utility Docket No. R-00973944), July 1997. Presented class cost of service and rate design testimony on behalf of the Pennsylvania Office of Consumer Advocate.
- Commonwealth Gas Services, Inc. (Virginia State Corporation Commission Case No. PUE970455), August 1997. Presented testimony addressing the Company's retail unbundling pilot program on behalf of the Division of Consumer Counsel, Office of the Attorney General.
- Consumers Pennsylvania Water Company, Shenango Valley Division (Pennsylvania Public Utility Docket No. R-00973972), September 1997. Presented class cost of service and rate design testimony on behalf of the Pennsylvania Office of Consumer Advocate.
- Sierra Pacific Power Company, Water Department (Nevada Public Service Commission Docket No. 97-9020), January 1998. Presented class cost of service and rate design testimony on behalf of the Nevada Utility Consumers' Advocate.
- Southern Union Gas Company (City of El Paso, Texas) Inquiry into Southern Union Gas Company's Purchased Gas Adjustment Clause, March 1998. Presented testimony addressing the reasonableness of the Company's gas procurement practices and policies on behalf of the City of El Paso, Texas.
- East Ohio Gas Company (Public Utilities Commission of Ohio Case No. 97-219-GA-GCR), March 1998. Co-authored report on the Company's residential and small commercial pilot transportation program on behalf of the Public Utilities Commission of Ohio.
- Columbia Gas of Ohio, Inc. (Public Utilities Commission of Ohio Case No. 98-222-GA-GCR), March 1998. Co-authored report on the Company's residential and small commercial pilot transportation program on behalf of the Public Utilities Commission of Ohio.
- National Fuel Gas Distribution Corporation (Pennsylvania Public Utility Commission Docket No. R-00974167), March 1998. Presented testimony on the allocation of purchased gas costs on behalf of the Pennsylvania Office of Consumer Advocate.
- Pawtucket Water Supply Board (Rhode Island Public Utilities Commission Docket No. 2674), April 1998. Presented class cost of service testimony on behalf of the Division of Public Utilities and Carriers.

- Equitable Gas Company (Pennsylvania Public Utilities Commission Docket No. R-00984279), May 1998. Presented testimony addressing the allocation of purchased gas costs and gas procurement practices and polices on behalf of the Pennsylvania Office of Consumer Advocate.
- East Ohio Gas Company (Public Utilities Commission of Ohio Case No. 97-219-GA-GCR), May 1998. Co-authored report on audit of management and performance of gas purchasing on behalf of the Public Utilities Commission of Ohio.
- UGI Utilities, Inc., Gas Utility Division (Pennsylvania Public Utility Docket No. R-00984352), July 1998. Presented testimony on the allocation of purchased gas costs on behalf of the Pennsylvania Office of Consumer Advocate.
- Northern Natural Gas Company (Federal Energy Regulatory Commission Docket No. RP98-203-000), October 1998. Presented testimony addressing delivery point imbalance tolerance levels on behalf of the Northern Municipal Distributors Group and the Midwest Region Gas Task Force Association.
- Columbia Gas of Ohio, Inc. (Public Utilities Commission of Ohio Case No. 98-223-GA-GCR), January 1999. Co-authored report on audit of management and performance of gas purchasing on behalf of the Public Utilities Commission of Ohio.
- North Shore Gas Company and Peoples Gas Light and Coke Company (Illinois Commerce Commission Docket Nos. 98-0819 and 98-0820), February 1999. Presented testimony addressing proposals to adopt fixed gas cost charges on behalf of the Citizens Utility Board.
- National Fuel Gas Distribution Corporation (Pennsylvania Public Utility Docket No. R-00984497), March 1999. Presented testimony addressing the allocation of purchased gas costs, gas price projections and the appropriate level of capacity entitlements on behalf of the Pennsylvania Office of Consumer Advocate.
- Delmarva Power and Light Company (Delaware Public Service Commission Docket No. 98-524), March 1999. Presented testimony addressing the Company's customer choice pilot program on behalf of the Division of Public Advocate.
- The Peoples Natural Gas Company (Pennsylvania Public Utility Docket No. R-00994600), May 1999. Presented testimony addressing the contracting for interstate pipeline capacity and the obligation to serve on behalf of the Pennsylvania Office of Consumer Advocate.
- Nicor Gas Company (Illinois Commerce Commission Docket No. 99-0127), May 1999.

 Presented testimony addressing performance-based rates for purchased gas costs on behalf of the Citizens' Utility Board.

- Elizabethtown Gas Company, New Jersey Natural Gas Company, Public Service Electric & Gas Company and South Jersey Gas Company (New Jersey Board of Public Utilities Docket Nos. GX99030121 GO99030125), July 1999. Presented testimony addressing the assignment of capacity by gas utilities to third-party suppliers and the recovery of stranded costs resulting from the unbundling of gas utility services on behalf of the Ratepayer Advocate.
- New Jersey Natural Gas Company (New Jersey Board of Utilities Docket No. G099030122), July 1999. Presented testimony addressing the unbundling of gas utility services on behalf of the Ratepayer Advocate.
- Carnegie Natural Gas Company (Pennsylvania Public Utility Commission Docket No. C-00970942), September 1999. Presented testimony addressing the design of sales and transportation rates on behalf of the Office of Consumer Advocate.
- The Peoples Natural Gas Company (Pennsylvania Public Utility Commission Docket No. R-00994782), September 1999. Presented testimony addressing the unbundling of gas utility services on behalf of the Office of Consumer Advocate.
- Equitable Gas Company (Pennsylvania Public Utility Commission Docket No. R-00994784), October 1999. Presented testimony addressing the unbundling of gas utility services on behalf of the Office of Consumer Advocate.
- City of Newport-Water Division (Public Utilities Commission of Rhode Island Docket No. 2985), December 1999. Presented testimony addressing cost allocation and rate design issues on behalf of the Division of Public Utilities and Carriers.
- Entergy Gulf States, Inc. (Public Utilities Commission of Texas Docket No. 2111), December 1999. Presented testimony addressing the recovery of purchased power and purchased gas costs on behalf of certain Cities served by Entergy Gulf States, Inc.
- National Fuel Gas Distribution Corporation (Pennsylvania Public Utility Commission Docket No. R-00994785), December 1999. Presented testimony addressing gas supply, unbundling and rate design restructuring issues on behalf of the Pennsylvania Office of Consumer Advocate.
- UGI Utilities, Inc. Gas Division (Pennsylvania Public Utility Commission Docket No. R-00994786), December 1999. Presented testimony addressing gas supply, unbundling and rate design restructuring issues on behalf of the Pennsylvania office of Consumer Advocate.
- Cincinnati Gas & Electric Company (Public Utilities Commission) of Ohio Case No. 99-218-GA-GCR), January 2000. Co-authored report on management performance audit of gas purchasing practices on behalf of the Public Utilities Commission of Ohio.

- T.W. Phillips Gas and Oil Company (Pennsylvania Public Utility Commission Docket No. R-00994790), April 2000. Presented testimony addressing gas supply, unbundling and rate design restructuring issues on behalf of the Pennsylvania Office of Consumer Advocate.
- National Fuel Gas Distribution Corporation (Pennsylvania Public Utility Commission Docket No. R-00994898), April 2000. Presented testimony addressing gas procurement practices and cost allocation on behalf of the Pennsylvania Office of Consumer Advocate.
- Equitable Gas Company (Pennsylvania Public Utility Commission Docket No. R-00005067), May 2000. Presented testimony addressing gas procurement practices and cost allocation on behalf of the Pennsylvania Office of Consumer Advocate.
- PECO Energy Company (Pennsylvania Public Utility Commission Docket No. R-00005285), July 2000. Presented testimony addressing gas procurement practices and cost allocation on behalf of the Pennsylvania Office of Consumer Advocate.
- UGI Utilities, Inc. -- Gas Division (Pennsylvania Public Utility Commission Docket No. R-00005281), July 2000. Presented testimony addressing gas procurement practices and cost allocation on behalf of the Pennsylvania Office of Consumer Advocate.
- Providence Water Supply Board (Public Utilities Commission of Rhode Island Docket No. 3163), October 2000. Presented testimony addressing cost allocation and rate design on behalf of the Division of Public Utilities and Carriers.
- Nicor Gas Company (Illinois Commerce Commission Docket Nos. 00-0620/00-0621), December 2000. Presented testimony addressing customer choice on behalf of the Citizens Utility Board.
- National Fuel Gas Distribution Corporation (Pennsylvania Public Utility Commission Docket No. R-00005832), April 2001. Presented testimony addressing gas procurement practices and cost allocation on behalf of the Pennsylvania Office of Consumer Advocate.
- The Peoples Natural Gas Company (Pennsylvania Public Utility Commission Docket No. R-00016115), May 2001. Presented testimony addressing gas procurement practices and cost allocation on behalf of the Pennsylvania Office of Consumer Advocate.
- Equitable Gas Company (Pennsylvania Public Utility Commission Docket No. R-00016132), May 2001. Presented testimony addressing gas procurement practices and cost allocation on behalf of the Pennsylvania Office of Consumer Advocate.
- Dayton Power & Light Company (Public Utilities Commission of Ohio Case No. 00-220-GA-GCR), May 2001. Co-authored report on audit of gas purchasing practices and policies on behalf of the Public Utilities Commission of Ohio.

- UGI Utilities, Inc. -- Gas Division (Pennsylvania Public Utility Commission Docket No. R-00016376), July 2001. Presented testimony addressing gas procurement practices and cost allocation on behalf of the Pennsylvania Office of Consumer Advocate.
- Northern Shore Gas Company (Illinois Commerce Commission Docket No. 01-0469), September 2001. Presented testimony addressing gas supply, unbundling and restructuring customer choice issues on behalf of the Citizens Utility Board, Cook County State's Attorney's Office and the People of the State of Illinois.
- The Peoples Gas Light and Coke Company (Illinois Commerce Commission Docket No. 01-0470), September 2001. Presented testimony addressing gas supply, unbundling and restructuring customer choice issues on behalf of the Citizens Utility Board, Cook County State's Attorney's Office and People of the State of Illinois.
- T.W. Phillips Gas & Oil Company (Pennsylvania Public Utility Commission Docket No. R-00016898), March 2002. Presented testimony addressing gas cost procurement practices and cost allocations on behalf of Pennsylvania Office of Consumer Advocate.
- National Fuel Gas Distribution Corporation (Pennsylvania Public Utility Commission Docket No. R-00016789), April 2002. Presented testimony addressing gas procurement practices and cost allocation on behalf of the Pennsylvania Office of Consumer Advocate.
- Northern Illinois Gas Company (Illinois Commerce Commission Docket No. 02-0067), April 2002. Presented testimony addressing performance based gas cost incentive program on behalf of the Citizens Utility Board and Cook County State's Attorney's Office.
- The Peoples Natural Gas Company (Pennsylvania Public Utility Commission Docket No. R-00027134), May 2002. Presented testimony addressing gas procurement practices and cost allocation on behalf of the Pennsylvania Office of Consumer Advocate.
- Equitable Gas Company (Pennsylvania Public Utility Commission Docket No. R-00027135), May 2002. Presented testimony addressing gas procurement practices and cost allocation on behalf of the Pennsylvania Office of Consumer Advocate.
- UGI Utilities, Inc. -- Gas Division (Pennsylvania Public Utility Commission Docket No. R-00027388), July 2002. Presented testimony addressing gas procurement practices and cost allocation on behalf of the Pennsylvania Office of Consumer Advocate.
- The Cincinnati Gas & Electric Company (Public Utilities Commission of Ohio Case No. 01-218-GA-GCR), July 2002. Co-authored report on audit of gas purchasing practices and policies on behalf of the Public Utilities Commission of Ohio.
- T.W. Phillips Gas & Oil Company (Pennsylvania Public Utility Commission Docket No. R-00027888), March 2003. Presented testimony addressing gas cost procurement practices and cost allocations on behalf of Pennsylvania Office of Consumer Advocate.

- National Fuel Gas Distribution Corporation (Pennsylvania Public Utility Commission Docket No. R-00038101), April 2003. Presented testimony addressing gas procurement practices and cost allocation on behalf of the Pennsylvania Office of Consumer Advocate.
- The Peoples Natural Gas Company (Pennsylvania Public Utility Commission Docket No. R-00038170), May 2003. Presented testimony addressing gas procurement practices and cost allocation on behalf of the Pennsylvania Office of Consumer Advocate.
- Equitable Gas Company (Pennsylvania Public Utility Commission Docket No. R-00038166), May 2003 Presented testimony addressing gas procurement practices and cost allocation on behalf of the Pennsylvania Office of Consumer Advocate.
- UGI Utilities, Inc. Gas Division (Pennsylvania Public Utility Docket No. R-00038411), July 2003. Presented testimony addressing gas procurement practices and cost allocation on behalf of the Pennsylvania Office of Consumer Advocate.
- Columbia Gas of Ohio, Inc. (Public Utilities Commission of Ohio Case No. 02-221-GA-GCR), July 2003. Co-authored report on audit of gas purchasing practices and policies on behalf of the Public Utilities Commission of Ohio.
- The Peoples Gas Light and Coke Company (Illinois Commerce Commission Docket No. 01-0707), July 2003. Presented testimony addressing gas procurement practices and cost allocation on behalf of the Citizens Utility Board.
- UGI Utilities, Inc. Gas Division (Pennsylvania Public Utility Commission Docket No. R-00049422), July 2004. Presented testimony addressing gas procurement practices and cost allocation on behalf of the Pennsylvania Office of Consumer Advocate.
- PFG, Inc. and North Penn Gas Company (Pennsylvania Public Utility Docket No. R-00049424), July 2004. Presented testimony addressing gas procurement practices and cost allocation on behalf of the Pennsylvania Office of Consumer Advocate.
- East Ohio Gas Company (Public Utilities Commission of Ohio Case No. 03-219-GA-GCR), August 2004. Co-authored report on audit of gas purchasing practices and policies on behalf of the Public Utilities Commission of Ohio.
- Southwest Gas Corporation (Nevada Public Services Commission Docket No. 04-6001), September 2004. Presented testimony addressing gas procurement practices on behalf of the Nevada Office of Consumer Advocate.
- Northern Natural Gas Company (FERC Docket No. RP04-155-000), November 2004. Presented testimony on billing determinant to be used for rate design on behalf of the Northern Municipal Distributors Group and Midwest Region Gas Task Force Association.

- Northern Indiana Public Service Company (Indiana Utility Regulatory Commission Cause No. 41338-GCA6), January 2005. Presented testimony addressing storage inventory pricing on behalf of the Indiana Office of Utility Consumer Counselor.
- Citizens Gas & Coke Utility (Indiana Utility Regulatory Commission Cause No. 37399-GCA84-S1), February 2005. Presented testimony addressing gas exchange transactions on behalf of the Indiana Office of Utility Consumer Counselor.
- Nicor Gas Company (Illinois Commerce Commission Docket No. 04-0779), February 2005.

 Presented testimony and addressing storage inventory carrying charges on behalf on the Citizens Utility Board and the Cook Country States' Attorney's Office.
- Heartland Gas Pipeline, LLC and Citizens Gas & Coke Utility (Indiana Utility Regulatory Commission Cause Nos. 42729 and 42730), March 2005. Presented testimony addressing the petition of Heartland for a certificate of public convenience and necessity to construct an intrastate pipeline, and the petition of Citizens for approval of a storage service agreement on behalf of the Indiana Office of Utility Consumer Counselor.
- T.W. Phillips Gas & Oil Company (Pennsylvania Public Utility Commission Docket No. R-00040059), March 2005. Presented testimony addressing gas cost procurement practices and cost allocations on behalf of Pennsylvania Office of Consumer Advocate.
- National Fuel Gas Distribution Corporation (Pennsylvania Public Utility Commission Docket No. R-00050216), March 2005. Presented testimony addressing gas procurement practices and cost allocation on behalf of the Pennsylvania Office of Consumer Advocate.
- Columbia Gas of Pennsylvania (Pennsylvania Public Utility Commission Docket No. R-00049783, May 2005. Presented testimony addressing fixed price sales services on behalf of the Pennsylvania Office of Consumer Advocate.
- The Peoples Natural Gas Company (Pennsylvania Public Utility Commission Docket No. R-00050267), May 2005. Presented testimony addressing gas cost allocation on behalf of the Pennsylvania Office of Consumer Advocate.
- Equitable Gas Company (Pennsylvania Public Utility Commission Docket No. R-00050272), May 2005. Presented testimony addressing gas procurement practices and cost allocation on behalf of the Pennsylvania Office of Consumer Advocate.
- PECO Energy Company and Public Service Electric and Gas Company (Pennsylvania Public Utility Commission Docket No. A-110550F0160), June 2005. Presented testimony addressing issues related to the post merger structure of the gas procurement function on behalf of the Pennsylvania Office of Consumer Advocate.

- UGI Utilities, Inc. Gas Division (Pennsylvania Public Utility Commission Docket No. R-00050539), July 2005. Presented testimony addressing gas procurement practices and gas cost allocation on behalf of the Pennsylvania Office of Consumer Advocate.
- PPL Gas Utilities Corporation (Pennsylvania Public Utility Docket No. R-00050540), July 2005. Presented testimony addressing gas procurement practices and cost allocation on behalf of the Pennsylvania Office of Consumer Advocate.
- Northern Utilities, Inc. (Maine Public Utilities Commission Docket No. 2005-87), July 2005. Presented testimony on gas cost allocation and the assignment of interstate pipeline capacity on behalf of the Maine Office of the Public Advocate.
- Southwest Gas Corporation (Nevada Public Services Commission Docket No. 05-5015), September 2005. Presented testimony addressing purchased gas cost recovery rates on behalf of the Nevada Office of Consumer Advocate.
- Northern Indiana Public Service Company (Indiana Utility Regulatory Commission Case No. 41338-GCA7), December 2005. Presented testimony addressing gas procurement practices and cost allocation on behalf of the Indiana Office of Utility Consumer Counselor.
- Indiana Gas Company, Southern Indiana Gas and Electric and Citizens Gas & Coke Utility (Indiana Utility Regulatory Commission Cause No. 42973), February 2006. Presented testimony addressing gas cost allocation on behalf of the Indiana Office of Utility Consumer Counselor.
- T.W. Phillips Gas & Oil Company (Pennsylvania Public Utility Commission Docket No. R-00000051134), March 2006. Presented testimony addressing gas cost procurement practices and cost allocations on behalf of Pennsylvania Office of Consumer Advocate.
- National Fuel Gas Distribution Corporation (Pennsylvania Public Utility Commission Docket No. R-61246), March 2006. Presented testimony addressing gas procurement practices and cost allocation on behalf of the Pennsylvania Office of Consumer Advocate.
- Cincinnati Gas & Electric Company (Public Utilities Commission of Ohio Case No. 05-218-GA-GCR), April 2006. Authored report on audit of gas purchasing practices and policies on behalf of the Public Utilities Commission of Ohio.
- The Peoples Natural Gas Company (Pennsylvania Public Utility Commission Docket No. R-00061301), May 2006. Presented testimony addressing gas procurement practices and cost allocation on behalf of the Pennsylvania Office of Consumer Advocate.
- Equitable Gas Company (Pennsylvania Public Utility Commission Docket No. R-00061295), May 2006. Presented testimony addressing gas procurement practices and cost allocation on behalf of the Pennsylvania Office of Consumer Advocate.

- Atmos Energy Corporation (Louisiana Public Service Commission Docket No. U-27703), May 2006. Authored report on audit of gas purchasing practices and cost allocation on behalf of the Staff of the Louisiana Public Service Commission.
- UGI Utilities, Inc. -- Gas Division (Pennsylvania Public Utility Commission Docket No. R-00061502), July 2006. Presented testimony addressing gas procurement practices on behalf of the Pennsylvania Office of Consumer Advocate.
- PPL Gas Utilities Corporation (Pennsylvania Public Utility Docket No. R-00061519), July 2006. Presented testimony addressing gas procurement practices on behalf of the Pennsylvania Office of Consumer Advocate.
- Equitable Resources Inc./The Peoples Natural Gas Company (Pennsylvania Public Utility Commission Docket No. A-122250F500), September 2006. Presented testimony addressing gas costs issues in this merger proceeding on behalf of the Pennsylvania Office of Consumer Advocate.
- Northern Indiana Public Service Company (Indiana Regulatory Utility Commission Cause No. 41338-GCA8), October 2006. Presented testimony addressing reported gas costs and gas cost incentive mechanism results on behalf of the Indiana Office of Utility Consumer Counselor.
- North Shore Gas Company/The Peoples Gas Light and Coke Company (Illinois Commerce Commission Docket Nos. 05-0748 and 05-0749), January 2007. Presented testimony addressing gas cost issues on behalf of the Citizens Utility Board and the City of Chicago.
- National Fuel Gas Distribution Corporation (Pennsylvania Public Utility Docket No. R-00072043), March 2007. Presented testimony addressing the allocation of purchased gas costs on behalf of the Pennsylvania Office of Consumer Advocate.
- Equitable Gas Company (Pennsylvania Public Utilities Commission Docket No. R-00072111), May 2007. Presented testimony addressing the allocation of purchased gas costs and gas procurement practices and policies on behalf of the Pennsylvania Office of Consumer Advocate.
- The Peoples Natural Gas Company (Pennsylvania Public Utility Docket No. R-00072109), May 2007. Presented testimony addressing gas procurement practices and policies and fuel retention charge discounting on behalf of the Pennsylvania Office of Consumer Advocate.
- UGI Utilities, Inc., Gas Utility Division (Pennsylvania Public Utility Docket No. R-0072335), July 2007. Presented testimony on gas procurement practices and policies on behalf of the Pennsylvania Office of Consumer Advocate.

- UGI Penn Natural Gas, Inc. (Pennsylvania Public Utility Docket No. R-00072334), July 2007.

 Presented testimony on gas procurement practices and policies on behalf of Pennsylvania Office of Consumer Advocate.
- North Shore Gas Company/The Peoples Gas Light and Coke Company (Illinois Commerce Commission Docket Nos. 07-0241 and 07-0242), July 2007. Presented testimony addressing the allocation of on-system storage on behalf of the Citizens Utility Board and City of Chicago.
- Providence Water Supply Board (Public Utilities Commission of Rhode Island Docket No. 3832), July 2007. Addressed cost of service and rate design on behalf of the Division of Public Utilities and Carriers.
- Dominion East Ohio Gas Company (Public Utility Commission of Ohio Case No. 07-219-GA-GCR), November 2007. Authored report on audit of gas purchasing practices and policies on behalf of the Public Utilities Commission of Ohio.
- Northern Indiana Public Service Company (Indiana Regulatory Utility Commission Cause No. 41338-GCA9), December 2007. Presented testimony addressing the reasonableness of reported gas costs and evaluating the results of the gas cost incentive mechanisms under which the company operates on behalf of the Indiana Office of Utility Commission Counselor.
- Aqua Pennsylvania, Inc. (Pennsylvania Public Utility Commission Docket No. R-00072711), February 2008. Presented testimony addressing cost of service, rate design and purchased water rider on behalf of the Pennsylvania Office of Consumer Advocate.
- National Fuel Gas Distribution Corporation (Pennsylvania Public Utilities Commission Docket No. R-2008-2012502), March 2008. Presented testimony addressing design day forecasting and transportation service balancing charges on behalf of the Pennsylvania Office of Consumer Advocate.
- T.W. Phillips Gas & Oil Company (Pennsylvania Public Utility Commission Docket No. R-2008-2013026), March 2008. Presented testimony addressing the disposition of capacity release revenues on behalf of the Pennsylvania Office of Consumer Advocate.
- Equitable Gas Company (Pennsylvania Public Utility Commission Docket No. R-2008-2021160), May 2008. Presented testimony addressing exchange transactions on behalf of the Pennsylvania Office of Consumer Advocate.
- UGI Utilities Gas Division (Pennsylvania Public Utility Commission Docket No. R-2008-2039417), July 2008. Presented testimony addressing capacity release and off-system sales revenue sharing and the acquisition of incremental capacity on behalf of the Pennsylvania Office of Consumer Advocate.

- UGI Penn Natural Gas, Inc. (Pennsylvania Public Utility Commission Docket No. R-2008-2039284), July 2008. Presented testimony addressing the acquisition of incremental capacity on behalf of the Pennsylvania Office of Consumer Advocate.
- North Shore Gas Company/The Peoples Gas Light and Coke Company (Illinois Commerce Commission Docket Nos. 06-0751 and 07-0311/06-752 and 07-0312), July 2008. Presented testimony addressing park and loan activities and out-of-period gas cost adjustments on behalf of the Citizens Utility Board and the City of Chicago.
- Pawtucket Water Supply Board (Public Utilities Commission of Ohio Docket No. 3945), July 2008. Presented testimony addressing class cost of service and rate design on behalf of the Division of Public Utilities and Carriers
- Philadelphia Water Department (Philadelphia Water Commission FY 2009-2012 Rates), July 2008. Presented testimony addressing water and waste water class cost of service and rate design on behalf of the Public Advocate.
- Northern Indiana Public Service Company (Indiana Utility Regulatory Commission Cause No. 41338-GCA10), March 2009. Presented testimony addressing gas procurement and incentive mechanism issues on behalf of the Office of Utility Consumer Counselor.
- Northern Indiana Public Service Company (Indiana Utility Regulatory Commission Case No. 41338-GCA11), December 2009. Presented testimony addressing gas procurement and incentive mechanism issues on behalf of the Office of Utility Consumer Counselor.
- City of Newport (Public Utilities Commission of Rhode Island), January 2010. Presented testimony sponsoring a water cost of service study on behalf of the Division of Public Utilities and Carriers.
- National Fuel Gas Distribution Corporation (Pennsylvania Public Utilities Commission Docket No. R-2010-2150861), March 2010. Presented testimony addressing design day forecasting and transportation service balancing charges on behalf of the Pennsylvania Office of Consumer Advocate.
- T.W. Phillips Gas & Oil Company (Pennsylvania Public Utility Commission Docket No. R-2009-2145441), March 2010. Presented testimony addressing capacity release revenues and retainage on behalf of the Pennsylvania Office of Consumer Advocate.
- Northern Natural Gas Company (Federal Energy Regulatory Commission Docket No. RP10-148), May 2010. Presented testimony addressing rate discounts on behalf of the Northern Municipal Distributors Group and Midwest Region Gas Task Force Association.

- The Peoples Natural Gas Company (Pennsylvania Public Utility Commission Docket No. R-2010-2155608), May 2010. Presented testimony addressing retainage and design peak day forecasting issues on behalf of the Pennsylvania Office of Consumer Advocate.
- Equitable Gas Company (Pennsylvania Public Utility Commission Docket No. R-2010-2155613), May 2010. Presented testimony addressing design peak day forecasting, balancing charges and off-system sales on behalf of the Pennsylvania Office of Consumer Advocate.
- PECO Energy Company Gas Division (Pennsylvania Public Utility Commission Docket No. R-2010-2161592), June 2010. Presented testimony addressing base rate cost allocation and rate design on behalf of the Pennsylvania Office of Consumer Advocate.
- UGI Utilities Gas Division (Pennsylvania Public Utility Commission Docket No. R-2010-2172933), July 2010. Presented testimony addressing supplier reservation charges and capacity assignment on behalf of the Pennsylvania Office of Consumer Advocate.
- UGI Penn Natural Gas, Inc. (Pennsylvania Public Utility Commission Docket No. R-2010-2172928), July 2010. Presented testimony addressing supplier reservation charges and capacity assignment on behalf of the Pennsylvania Office of Consumer Advocate.
- UGI Central Penn Gas, Inc. (Pennsylvania Public Utility Commission Docket No. 2010-2172922), July 2010. Presented testimony addressing the assignment of capacity on behalf of the Pennsylvania Office of Consumer Advocate.
- T.W. Phillips Gas & Oil Company (Pennsylvania Public Utility Commission Docket No. R-2010-2167797), August 2010. Presented testimony addressing base rate cost allocation and rate design on behalf of the Pennsylvania Office of Consumer Advocate.
- North Shore Gas Company/The Peoples Gas Light and Coke Company (Illinois Commerce Commission Docket Nos. 07-0576 and 07-0577), October 2010. Presented testimony addressing the reasonableness and allocation of purchased gas costs on behalf of the Citizens Utility Board.
- Columbia Gas of Ohio, Inc. (Public Utilities Commission of Ohio Case No. 10-221-GA-GCR), November 2010. Authored report on audit of gas purchasing practices and policies on behalf of the Public Utilities Commission of Ohio.
- Northern Indiana Public Service Company (Indiana Utility Regulatory Commission Cause No. 43629-GCA16), November 2010. Presented testimony addressing gas procurement and incentive mechanism issues on behalf of the Office of Utility Consumer Counselor.
- Peoples Natural Gas Company (Pennsylvania Public Utility Commission Docket No. R-2010-2201702), January 2011. Presented testimony addressing base rate cost allocation and rate design on behalf of the Pennsylvania Office of Consumer Advocate.

- UGI Penn Natural Gas, Inc. (Pennsylvania Public Utility Commission Docket No. A-2010-221389), February, 2011. Presented testimony addressing the transfer of facilities to an affiliate on behalf of the Pennsylvania Office of Consumer Advocate.
- UGI Central Penn Gas, Inc. (Pennsylvania Public Utility Commission Docket No. R-2010-2214415), April 2011. Presented testimony addressing base rate cost allocation and rate design on behalf of the Pennsylvania Office of Consumer Advocate.
- The Peoples Natural Gas Company (Pennsylvania Public Utility Commission Docket No. R-2011-2228694), May 2011. Presented testimony addressing retainage and lost and unaccounted-for gas issues on behalf of the Pennsylvania Office of Consumer Advocate.
- Equitable Gas Company (Pennsylvania Public Utility Commission Docket No. R-2011-2223563), May 2011. Presented testimony addressing retainage issues on behalf of the Pennsylvania Office of Consumer Advocate.
- UGI Utilities Gas Division (Pennsylvania Public Utility Commission Docket No. R-2011-2238953), July 2011. Presented testimony addressing design peak day forecasting, winter season planning criteria and capacity RFP process on behalf of the Pennsylvania Office of Consumer Advocate.
- UGI Penn Natural Gas, Inc. (Pennsylvania Public Utility Commission Docket No. R-2011-2238943), July 2011. Presented testimony addressing design peak day forecasting, winter season planning criteria and capacity RFP process on behalf of the Pennsylvania Office of Consumer Advocate.
- UGI Central Penn Gas, Inc. (Pennsylvania Public Utility Commission Docket No. 2011-2238949), July 2011. Presented testimony addressing the Company's winter season planning criteria and capacity RFP process on behalf of the Pennsylvania Office of Consumer Advocate.
- Northern Utilities, Inc. (Maine Public Utilities Commission Docket No. 2011-92), August 2011. Presented testimony addressing cost allocation and rate design on behalf of the Maine Public Advocate.
- United Water Rhode Island, Inc. (Public Utilities Commission of Rhode Island Docket No. 4255), September 2011. Presented testimony addressing cost allocation and rate design on behalf of the Division of Public Utilities and Carriers.
- Northern Indiana Public Service Company (Indiana Utility Regulatory Commission Cause No. 43629-GCA20), November 2011. Presented testimony addressing gas procurement and incentive mechanism issues on behalf of the Office of Utility Consumer Counselor.

- National Fuel Gas Distribution Corporation (Pennsylvania Public Utilities Commission Docket No. R-2012-2281465), March 2012. Presented testimony addressing design day forecasting, the allocation of capacity costs and pipeline penalties on behalf of the Pennsylvania Office of Consumer Advocate.
- T.W. Phillips Gas & Oil Company (Pennsylvania Public Utility Commission Docket No. R-2011-2273539), March 2012. Presented testimony addressing the reconciliation of gas costs and revenues on behalf of the Pennsylvania Office of Consumer Advocate.
- Philadelphia Gas Works (Pennsylvania Public Utility Commission Docket No. R-2012-2286447), April 2012. Presented testimony addressing interstate pipeline capacity and gas supply contracting practices on behalf of the Pennsylvania Office of Consumer Advocate.
- Cleco Power LLC (Louisiana Public Service Commission Docket No. U-30955), April 2012. Co-authored Report auditing the reasonableness of the fuel costs of Cleco on behalf of the LPSC Staff.
- The Peoples Natural Gas Company (Pennsylvania Public Utility Commission Docket No. R-2012-2292082), May 2012. Presented testimony addressing retainage charges on behalf of the Pennsylvania Office of Consumer Advocate.
- Equitable Gas Company (Pennsylvania Public Utility Commission Docket No. R-2012-2287044), May 2012. Presented testimony addressing the crediting of asset management arrangement fees and the allocation of capacity costs on behalf of the Pennsylvania Office of Consumer Advocate.
- Peoples Natural Gas Company (Pennsylvania Public Utility Commission Docket No. R-2012-2285985), May 2012. Presented testimony addressing gas cost allocation and rate design on behalf of the Pennsylvania Office of Consumer Advocate.
- PECO Energy Company (Pennsylvania Public Utility Commission Docket No. R-2012-2302784), June 2012. Presented testimony addressing the procurement of long-term fixed price gas supplies on behalf of the Pennsylvania Office of Consumer Advocate.
- City of Woonsocket Water Division (Public Utilities Commission of Rhode Island Docket No. 4320), June 2012. Presented testimony addressing water cost of service and rate design on behalf of the Division of Public Utilities and Carriers.
- UGI Utilities, Inc. Gas Division (Pennsylvania Public Utility Commission Docket No. R-2012-2302220), July 2012. Presented testimony addressing design peak day forecasting and the assignment of interstate pipeline capacity on behalf of the Pennsylvania Office of Consumer Advocate.

- UGI Penn Natural Gas, Inc. (Pennsylvania Public Utility Commission Docket No. R-2012-2302221), July 2012. Presented testimony addressing design peak day forecasting and the sharing of capacity release revenues on behalf of the Pennsylvania Office of Consumer Advocate.
- UGI Penn Natural Gas, Inc. (Pennsylvania Public Utility Commission Docket No. R-2012-2314224); UGI Utilities, Inc. Gas Division (Pennsylvania Public Utility Commission Docket No. R-2012-2314235); and UGI Central Penn Gas, Inc. (Pennsylvania Public Utility Commission Docket No. R-2012-2314247), October 2012. Presented testimony addressing Gas Procurement Charges on behalf of the Pennsylvania Office of Consumer Advocate.
- Duke Energy Ohio, Inc. (Public Utilities Commission of Ohio Case No. 12-218-GA-GCR), November 2012. Authored report on audit of gas purchasing practices and policies on behalf of the Public Utilities Commission of Ohio.
- City of Newport (Public Utilities Commission of Rhode Island Docket No. 4355), December 2012. Presented testimony addressing water cost of service on behalf of Division of Public Utilities and Carriers.
- Northern Indiana Public Service Company (Indiana Utility Regulatory Commission Cause No. 43629-GCA-24), December 2012. Presented testimony addressing the assignment and sharing of capacity release revenues, administration of the Company's gas cost incentive mechanism, and gas procurement activity on behalf of the Office of Utility Consumer Counselor.
- Northern Indiana Public Service Company (Indiana Utility Regulatory Commission Cause No. 43629-GCA-25), January 2013. Presented testimony addressing the assignment and sharing of capacity release revenues, administration of the Company's gas cost incentive mechanism, and gas procurement activity on behalf of the Office of Utility Consumer Counselor.
- PECO Energy Company (Pennsylvania Public Utility Commission Docket No. R-2012-2328614), January 2013. Presented testimony addressing tariff filing to establish a Gas Procurement Charge on behalf of the Pennsylvania Office of Consumer Advocate.
- Equitable Gas Company, LLC (Pennsylvania Public Utility Commission Docket No. R-2012-2333983), February 2013. Presented testimony addressing tariff filing to establish a Gas Procurement Charge and a Merchant Function Charge on behalf of the Pennsylvania Office of Consumer Advocate.
- Philadelphia Gas Works (Pennsylvania Public Utility Commission Docket No. R-2012-2333993), February 2013. Presented testimony addressing tariff filing to establish a Gas Procurement Charge and a Merchant Function Charge on behalf of the Pennsylvania Office of Consumer Advocate.

- Chesapeake Utilities Corporation (Delaware Public Service Commission Docket No. 12-450F), March 2013. Presented testimony addressing lost and unaccounted for gas, and the allocation of upstream interstate pipeline capacity on behalf of the Delaware Public Service Commission.
- Delmarva Power & Light Company (Public Service Commission of the State of Delaware Docket No. 12-419F), March 2013. Presented testimony addressing interstate pipeline capacity and gas supply contracting practices on behalf of the Delaware Public Service Commission.
- National Fuel Gas Distribution Corporation (Pennsylvania Public Utility Commission Docket No. R-2013-2341534), March 2013. Presented testimony addressing design day forecasting and the allocation of capacity costs on behalf of the Pennsylvania Office of Consumer Advocate.
- Northern Indiana Public Service Company (Indiana Utility Regulatory Commission Cause No. 43629-GCA-26), April 2013. Presented testimony addressing the assignment and sharing of capacity release revenues, administration of the Company's gas cost incentive mechanism, and gas procurement activity on behalf of the Office of Utility Consumer Counselor.
- Philadelphia Gas Works (Pennsylvania Public Utility Commission Docket No. R-2013-2346376), April 2013. Presented testimony addressing interstate pipeline capacity and gas supply contracting practices on behalf of the Pennsylvania Office of Consumer Advocate.
- Peoples Natural Gas, LLC (Pennsylvania Public Utility Commission Docket No. R-2013-2350914), May 2013. Presented testimony addressing retainage charges on behalf of the Pennsylvania Office of Consumer Advocate.
- Northern Indiana Public Service Company (Indiana Utility Regulatory Commission Cause No. 43629-GCA-27), July 2013. Presented testimony addressing the assignment and sharing of capacity release revenues, administration of the Company's gas cost incentive mechanism, and gas procurement activity on behalf of the Office of Utility Consumer Counselor.
- Citizens Water (Indiana Utility Regulatory Commission Cause No. 44306), July 2013. Presented testimony addressing water cost of service and rate design on behalf of the Indiana Office of Utility Consumer Counselor.
- Peoples TWP, LLC (Pennsylvania Public Utility Commission Docket No. R-2013-2355886), July 2013. Presented testimony addressing gas cost of service and rate design on behalf of the Pennsylvania Office of Consumer Advocate.

- UGI Central Penn Gas, Inc. (Pennsylvania Public Utility Commission Docket No. R-2013-2361764), July 2013. Presented testimony to addressing the contracting for interstate pipeline capacity and the reconciliation of gas costs and revenues on behalf of the Pennsylvania Office of Consumer Advocate.
- UGI Penn Natural Gas, Inc. (Pennsylvania Public Utility Commission Docket No. R-2013-2361763), July 2013. Presented testimony addressing the reconciliation of gas costs and revenues on behalf of the Pennsylvania Office of Consumer Advocate.
- UGI Utilities Gas Division (Pennsylvania Public Utility Commission Docket No. R-2013-2361771), July 2013. Presented testimony addressing the contracting for interstate pipeline capacity and the reconciliation of gas costs and revenues on behalf of the Pennsylvania Office of Consumer Advocate.
- Washington Gas Light Company (Public Service Commission of Maryland Case No. 9322), July 2013. Presented testimony addressing cost of service, rate design and other tariff changes on behalf of the Office of People's Counsel.
- CWA Authority, Inc. (Indiana Utility Regulatory Commission Cause No. 44305), August 2013. Presented testimony addressing wastewater cost of service and rate design on behalf of the Indiana Office of Utility Consumer Counselor.
- Providence Water Supply Board (Public Utilities Commission of Rhode Island Docket No. 4406), August 2013. Presented testimony addressing water class cost of service and rate design on behalf of the Division of Public Utilities and Carriers.
- The York Water Company (Pennsylvania Public Utility Commission Docket No. R-2012-2336379), September 2013. Presented testimony addressing water cost of service and rate design on behalf of the Pennsylvania Office of Consumer Advocate.
- Northern Indiana Public Service Company (Indiana Utility Regulatory Commission Cause No. 43629-GCA-28), October 2013. Presented testimony addressing the assignment and sharing of capacity release revenues, administration of the Company's gas cost incentive mechanism, and gas procurement activity on behalf of the Office of Utility Consumer Counselor.
- Nicor Gas Company (Illinois Commerce Commission Docket No. 03-0703), November 2013.

 Presented testimony addressing the reconciliation of purchase gas costs on behalf of the Citizens Utility Board.
- Northern Indiana Public Service Company (Indiana Utility Regulatory Commission Cause No. 43629-GCA-29), January 2014. Presented testimony addressing the assignment and sharing of capacity release revenues, administration of the Company's gas cost incentive mechanism, and gas procurement activity on behalf of the Office of Utility Consumer Counselor.

- Delmarva Power & Light Company (Public Service Commission of the State of Delaware Docket No. 13-349F), February 2014. Presented testimony addressing interstate pipeline capacity and gas supply contracting practices on behalf of the Delaware Public Service Commission.
- National Fuel Gas Distribution Corporation (Pennsylvania Public Utility Commission Docket No. R-2014-2399610), March 2014. Presented testimony addressing design day forecasting and the allocation of capacity costs on behalf of the Pennsylvania Office of Consumer Advocate.
- Atmos Energy Corporation (Louisiana Public Service Commission Docket No. U-32987), April 2014. Presented testimony addressing modifications to the Company's Rate Stabilization Clause.
- Peoples Natural Gas, LLC (Pennsylvania Public Utility Commission Docket No. R-2014-2403939), April 2014. Presented testimony addressing the allocation of interstate pipeline capacity charges and balancing charges on behalf of the Pennsylvania Office of Consumer Advocate.
- Philadelphia Gas Works (Pennsylvania Public Utility Commission Docket No. R-2014-2404355), April 2014. Presented testimony addressing the crediting of interstate pipeline capacity release revenues, gas supply put contracts, and the treatment of daily imbalance surcharges and cash-outs on behalf of the Pennsylvania Office of Consumer Advocate.
- Chesapeake Utilities Corporation (Delaware Public Service Commission Docket No. 13-351F), May 2014. Presented testimony addressing lost and unaccounted for gas, and the allocation of upstream interstate pipeline capacity on behalf of the Delaware Public Service Commission.
- Equitable Gas Company, LLC (Pennsylvania Public Utility Commission Docket No. R-2014-2403935), May 2014. Presented testimony addressing standby charges, balancing charges, and the price-to-compare on behalf of the Pennsylvania Office of Consumer Advocate.
- Indiana American Water Company (Indiana Utility Regulatory Commission Cause No. 44450), May 2014. Presented testimony addressing water cost of service and rate design on behalf of the Indiana Office of Utility Consumer Counselor.
- Northern Indiana Public Service Company (Indiana Utility Regulatory Commission Cause No. 43629-GCA-30), May 2014. Presented testimony addressing the assignment and sharing of capacity release revenues, administration of the Company's gas cost incentive mechanism, and gas procurement activity on behalf of the Office of Utility Consumer Counselor.

- Chattanooga Gas Company (Tennessee Regulatory Authority Docket No. 07-00224), July 2014. Prepared a report reviewing the Company's performance-based ratemaking mechanism on behalf of the Tennessee Regulatory Authority and Consumer Advocate and Protection Division of the Tennessee Attorney General.
- UGI Central Penn Gas, Inc. (Pennsylvania Public Utility Commission Docket No. R-2014-2420279), July 2014. Presented testimony to addressing affiliated pipeline charges on behalf of the Pennsylvania Office of Consumer Advocate.
- UGI Penn Natural Gas, Inc. (Pennsylvania Public Utility Commission Docket No. R-2014-2420273), July 2014. Presented testimony addressing affiliated pipeline charges on behalf of the Pennsylvania Office of Consumer Advocate.
- UGI Utilities Gas Division (Pennsylvania Public Utility Commission Docket No. R-2014-2420276), July 2014. Presented testimony addressing the contracting for interstate pipeline capacity and the reconciliation of gas costs and revenues on behalf of the Pennsylvania Office of Consumer Advocate.

BONNIE F. SHAMBLIN

Ms. Shamblin is a Senior Analyst at Exeter Associates, Inc. with over 20 years of experience in energy procurement, energy efficiency, and renewable energy, including utility-scale solar projects. With Exeter, Ms. Shamblin provides detailed analysis on the economic impacts of energy and environmental policies. She also provides technical support to state and federal agencies by reviewing utility supply contracts and rates, assessing economic feasibility of alternative energy projects, and exploring economic ways to expand the use of energy efficient technologies and distributed resources.

Education

B.A. (Economics) – University of Maryland at College Park, 1987

M.B.A. (Finance and Accounting) – University of Maryland at College Park, 1991

Congressional Appointment to the US Naval Academy Class of 1987 Annapolis, Maryland, Served 1983 – 1985, Honorable Discharge

Previous Employment

2012-2013	Commodity Business Development Manager Constellation Energy Group (CEG), an Exelon Company New York, New York
2008-2011	Manager, Business Development, Renewable and Energy Solutions Public Service Gas & Electric Company (PSE&G) Newark, New Jersey
2004-2007	Registered Investment Advisor Merrill Lynch New York, New York
1999-2004	Regional Energy Manager Pepco Energy Services (PES) Arlington, Virginia
1994-1999	Program Manager Potomac Electric Power Company (PEPCO) Washington, D.C.
1991-1994	Rate Research Analyst Baltimore Gas & Electric Company (BG&E) Baltimore, Maryland

Professional Experience

From 2008 to 2011, Ms. Shamblin worked as a Senior Manager for one of the largest combined electric and gas utilities in the United States, directing and implementing energy efficiency and renewable programs for large commercial and industrial customers. Ms. Shamblin managed the team of Program Managers (three engineers, one contracts administrator, and one administrative associate) which led implementation of each sub-program within the Economic Energy Efficiency (EEE) program; e.g., hospitals, data centers, multi-family dwellings, and warehouses. Ms. Shamblin oversaw the entire process from Investment Grade Audit (IGA) to engineering and design, to RFP, vendor selection and guidance, through construction and commissioning of Energy Conservation Measures (ECMs). Ms. Shamblin provided assistance to customers in the selection of ECMs, and worked with customers as well as the company Program Design/Regulatory team to ensure program implementation complied with Board Order.

Ms. Shamblin led sections of the company's Solar Program, as well as a partnership with Newark (New Jersey) Public Schools to install, own, and operate rooftop solar combined with a Green educational program for Newark Public School students. Ms. Shamblin developed the sales and marketing strategy for the company's solar loan program through targeted solar expos and tracking/monitoring follow-up of leads generated from these events. Ms. Shamblin accompanied Major Account Consultants as the Solar Program Subject Matter Expert on prequalified high priority direct customer calls. Ms. Shamblin conducted customer, contractor, and vendor presentations and webinars on solar project finance. Ms. Shamblin also designed educational materials and conducted solar project finance training for Major Account Consultants, vendors, and contractors in PSE&G solar programs and several other company energy efficiency programs. In addition, Ms. Shamblin served on the company's internal PEV (plug-in electric vehicles) Readiness Task Force, completing an assessment and recommendation presented to the Board of Directors.

Ms. Shamblin has significant experience in energy procurement, having negotiated large-scale electricity procurement contracts, navigating relevant commercial, regulatory, and legal issues, and guiding customers in obtaining available state and/or federal rebates. Ms. Shamblin has partnered with associations and commercial/industrial customers as well as the public sector to assess and provide energy commodity and custom energy efficiency/renewable energy solutions and strategies.

Ms. Shamblin spent the early part of her career as a Rate Analyst and Senior Rate Analyst for both Baltimore Gas & Electric Company (BGE) and Potomac Electric Power Company (Pepco), designing rates and calculating cost of electric and gas service. In these roles, Ms. Shamblin created spreadsheet models for use in rate case testimony before the Maryland Public Service Commission and the Public Service Commission of the District of Columbia. Subsequently, Ms. Shamblin worked for Pepco's deregulated subsidiary, Pepco Energy Services (PES), helping to define strategy for market entry into New Jersey when that electricity market opened up to retail competition. Ms. Shamblin traveled from Washington D.C. to the New Jersey Board of Public Utilities every Wednesday to participate in influencing the setting of rules for electric retail competition, via regulatory monitoring and testifying on behalf of PES.